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SPRING



CATALOG

1919

NORTHERN GROWN  
SEEDS

FOR

Farm, Garden and Lawn

PONTIAC, The C.E. DE PUY CO. MICHIGAN



# Our 1919 Combination Offer

1 packet	Copenhagen Market Cabbage, the best of all early sorts	.....	\$0.10
1 packet	Crimson Beauty Tomato, the queen of tomatoes	.....	.15
1 packet	Banana Muskmelon, very fine	.....	.05
1 packet	Lemon Cucumber, finest of all for slicing	.....	.10
1 packet	Cos Lettuce, well worth a trial	.....	.05
1 packet	Swiss Chard, best of all greens	.....	.05

All for 25 Cents, Postpaid. \$0.50

This is the best assortment we have ever offered for 25 cents. Every item in this list is the best of its class and every one should be grown in every garden.

## Order Early and Avoid Disappointment

### How to Order

**Free Postage or Express.** We pay postage or express on packets, ounces, quarter pounds or pounds ordered at list prices. Customers ordering enough for freight shipments, or desiring to pay their own charges, may deduct eight cents per pound from Prepaid List Prices.

**Our Terms** are strictly cash with orders. As to our responsibility, we refer to Pontiac banks; First and Old Detroit National Bank, Detroit, and to Dun's or Bradstreet's reports.

**Remittances** should be by postoffice, or express money order, bank draft, check or registered letter. Remittances any other way will be at sender's risk. We will accept stamps if in good condition for sums less than \$1.00.

**How to Order.** Please use order sheet in catalog. Other blanks will be furnished by asking for them. Fill out blank spaces at top, write name and full address plainly. Keep a copy of your order. If wishing to write regarding any other matter than the order, please use a separate sheet.

**Seeds by Parcel Post.** By a recent ruling, seeds are carried at the same rate as other merchandise. Up to 8 ounces the rate is one cent for each two ounces for any distance. Over 8 ounces take pound rates. Within the local zones and up to 150 miles, the maximum weight is 50 pounds. Greater distances, the maximum weight is 20 pounds. If seeds are to be sent by mail, remittance should include postage as per schedule below. Any postoffice has a map showing zones and will furnish rates.

**Seeds by Express.** In certain instances express rates on small lots are lower than either mail or freight. These can be ascertained by inquiry at your express office, and charges can be paid there when shipment arrives.

**Seeds by Freight.** Be sure to give name of your nearest freight office. If a prepaid station, freight charges must be included in remittance, when shipment will be sent with charges paid.

**Bags Charged.** A charge of 70 cents will be made for each new cotton seamless grain bag. These are heavy 16-ounce and hold 2½ bushels.

**Our Gardeners Packets** are a departure from the usual sealed envelope, which, when once torn open, is difficult to preserve without the seed losing out. They are put up fresh when ordered, are not torn open to get the seed out, will not leak, are always ready to use from and will be found very convenient and safe. Remember, no old, carried over packets from us.

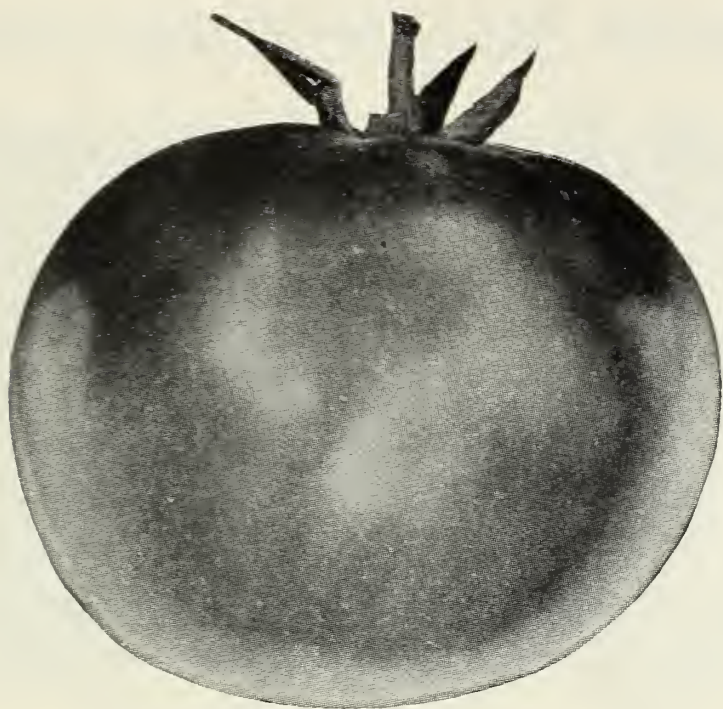
**Non-Warranty.** Most of the failures with seeds are due to causes entirely beyond our control, such as unfavorable weather or soil conditions, too deep or too shallow planting, etc., which renders it impossible for us to guarantee success, and although we take all possible care to supply only such goods as will, under proper conditions, produce satisfactory results, we still give no warranty as to description, quality or productiveness of any of the seeds we send out, and will not be in any way responsible for the crop. If the purchaser does not accept the goods under these conditions, they are to be at once returned.

However, to show our confidence in the seeds we furnish, we will allow ten days in which to make germination tests, and if not found entirely satisfactory, the goods may be returned to us, when your purchase money and all transportation charges will be promptly refunded. We could not afford to make this offer if we were not sure of our quality.

**THE C. E. DEPUY COMPANY**

Local	Lbs.	1	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22-23	24-25	26-27	28-29	30-31	32-33	34-35	36-37	38-39	40-41	42-43	44-45	46-47	48-49	50				
	Postage	5c	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
Zone 1 and 2 150 Miles	Lbs.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26				
	Postage	5c	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
Weight		1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.	12 lbs.	13 lbs.	14 lbs.	15 lbs.	16 lbs.	17 lbs.	18 lbs.	19 lbs.	20 lbs.										
Zone 3 300 Miles		6c	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44										
Zone 4 600 Miles		7c	11	15	19	23	27	31	35	39	43	47	51	55	59	63	67	71	75	79	83										
Zone 5 1000 Miles		8c	14	20	26	32	38	44	50	56	62	68	74	80	86	92	98	1.04	1.10	1.16	1.22										
Zone 6 1400 Miles		9c	17	25	33	41	49	57	65	73	81	89	97	1.05	1.13	1.21	1.29	1.37	1.45	1.53	1.61										
Zone 7 1800 Miles		11c	21	31	41	51	61	71	81	91	1.01	1.11	1.21	1.31	1.41	1.51	1.61	1.71	1.81	1.91	2.01										
Zone 8 Over 1800 Miles		12c	24	36	48	60	72	84	96	1.08	1.20	1.32	1.44	1.56	1.68	1.80	1.92	2.04	2.16	2.28	2.40										





Crimson Beauty Tomato.

The Crimson Beauty is certainly great. Tested it out with the most popular tomato in this section, the Earliana, and found Crimson Beauty far ahead of it. Ripens a few days earlier and never had a single fruit crack; fine shape, good size, heavy bearer, exceptional flavor and very firm until bright red. Will grow an acreage of it the coming year.—GEO. D. HILL, Benton Harbor, Mich.

I am more than satisfied with Crimson Beauty Tomatoes. They are much better than I anticipated, being earlier and of better quality than any we have ever grown. The smoothness of this tomato makes it very desirable for table use.—MRS. JNO. MURPHY, Albion, Pa.

My Crimson Beauty Tomato plants are fine, with an abundance of fruit of fine quality and size, and I would not ask for a better tomato.—CHAS. TOFTS, Stafford, N. Y.

## DePUY'S Crimson Beauty Tomato

Our earlier claims for this wonderful tomato have been more than justified, and words of highest praise are coming to us from all parts of the country. It is without question the **Earliest Tomato yet produced** and astonishingly large for one so early, but better yet, it is perfectly smooth, very prolific, handsome color, solid, few seeds, and possesses a delicious flavor. No tomato yet introduced combines so many good qualities as DePuy's Crimson Beauty, and until you have tried it, you can never appreciate its remarkable merits. Through wet and dry seasons it has stood the test, and today we unhesitatingly claim for it **The Finest Tomato in Existence**. Read some of the scores of letters from growers who have tried it.

The nature of this tomato is to produce but few seeds. Prices, packet, 15c; ¼ oz., 50c; ½ oz., 90c; 1 oz., \$1.50, post-paid.

I raised the Crimson Beauty tomato this year and find it a very fine flavored tomato. My wife is canning them now. I weighed five tomatoes and they weighed 3 lbs. 5 oz. That is the average. They are very smooth and average 45 to the stalk. I can say they are the earliest and best tomato I ever raised.—A. M. UNDERWOOD, Bethesda, Ohio.

I cannot praise your Crimson Beauty tomato enough. It has more than proved a success in spite of dry weather; growing large and smooth and a most beautiful color. They cannot be beaten for size, color, flavor and yield, and can truthfully say they are a grand tomato.—FRANK G. MYERS, Columbia City, Indiana.

I wish to say a few words in regard to your wonderful tomato, the Crimson Beauty. Out of 17 experiments I made this summer with tomatoes, all given the same care and treatment, I find the Crimson Beauty superior both in quality and quantity.—L. J. COPLAN, Muscatine, Iowa.

I can certainly praise your Crimson Beauty Tomato. I think it should be called the "World Beater," for I never did raise such fine tomatoes before as the Crimson Beauty.—NANCY BUCKNER, Vanceburg, Ky.

## Hybridized Potato Seeds

### 50 NEW VARIETIES OF POTATOES

CAN EASILY BE GROWN FROM ONE PACKAGE OF OUR GENUINE HYBRIDIZED POTATO SEEDS—EVERY SEED WILL POSITIVELY BRING A DIFFERENT VARIETY.

These Rare and curious seeds—from the seed balls—will produce white, yellow, pink, red, blue, purple, variegated, and black Potatoes. Often 50 to 200 in a hill. Of shapes, types, and qualities innumerable. Early and late, strange freaks, etc.

✚ All Valuable New POTATOES Are Produced from Just Such Seeds.

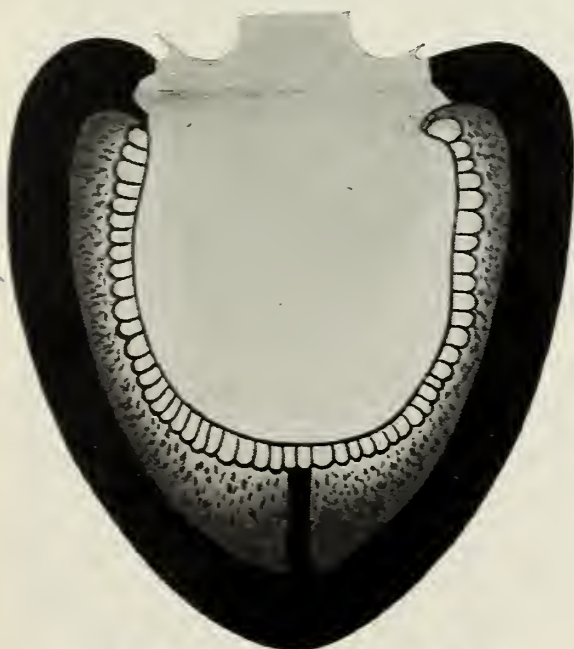
One may make your fortune. Now is your time. Give your boy a chance also to grow "Seedling" Potatoes. It is so easy. He may be the lucky one. The possibility of producing a new variety superior to all others—and more valuable than a gold mine—is fascinating in the extreme.

Order now. Secure Headquarters Stock while you can. Please show this to your friends.

PACKAGE with full directions. 15c each; 4 for 50c; 10 for \$1.00.



Potato Seed Bulbs (one-third size).



PERFECTION PIMENTO PEPPER.

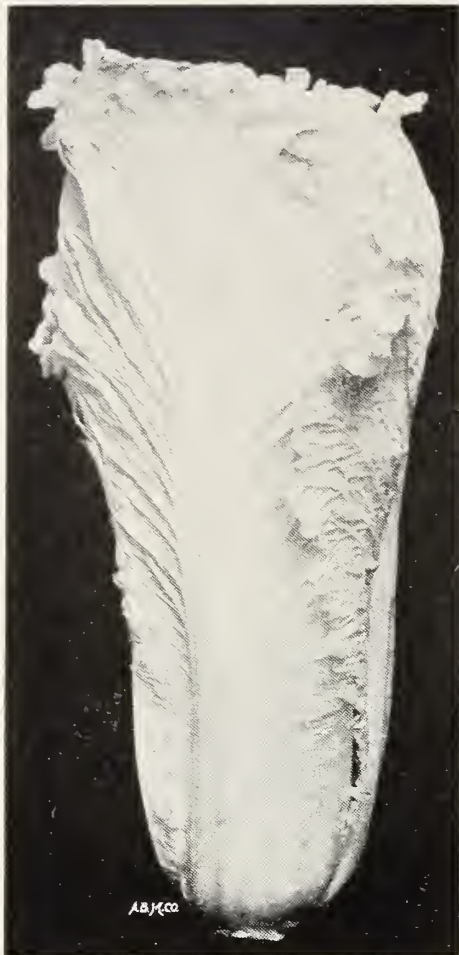
## Perfection Pimento Pepper

The illustration shows a longitudinal section of a ripe Perfection Pimento Pepper, about one-half natural size. This is the best and most perfectly developed pepper of the Pimento family ever produced, and represents several years of careful cultivation and improvement. This pepper, while one of the best for general use, is what its name implies, Perfection, for canning. Note the thick outer flesh and solid center. It is smooth and uniform in size and shape, so that skins are easily slipped off by burning a few seconds over a hot fire, or by boiling a few minutes in water, or, it may be pared like an apple. It is the mildest of all peppers, sweet and possesses the same rich flavor as the imported pimento sold in cans and bottles at fancy prices. Why not produce your own supply of this rich delicacy at a mere fraction of what you pay at the stores? Pkt., 15c; ½ oz., 35c; oz., 60c; ¼ lb., \$1.75, postpaid.

"The Crimson Beauty Tomatoes are doing fine for the dry weather. We are canning from them now. I like them just fine and am going to keep in the seed. They have the finest flavor of any Tomato I ever ate."—MRS. WM. SHIELDS, Lewis, Ind.

"It has been so dry in this section that nothing has done well, but the Crimson Beauty Tomato must be very early as I had ripe tomatoes before anyone else in the neighborhood. They are fine flavor, small core and so smooth."—MRS. MINOR W. BEECHER, Addison, Mich.





Chinese Celery Cabbage.

**DePuy's Seeds are First  
Aids to Good Crops**

## Chinese or Celery Cabbage

Culture same as for winter cabbage. Set plants one and one-half inches deep and one foot apart in the rows. When well grown, plants should be blanched by tying closely with burlap. Not hardy to frost, but do best in cool weather.

Celery Cabbage has been cultivated for centuries in China, and was introduced by the Chinese to our Pacific Coast, where it at once became a favorite garden plant with Americans. It possesses a flavor different from any other vegetable, being a combination of celery and cabbage, with the characteristics of Cos Lettuce, the blanched heads becoming crisp and tender. Cooked with meat it makes one of the most delicious greens, or may be served as cold slaw or salad. Without blanching it makes a most valuable green chicken feed.

Don't fail to give this a place in your garden this season. Pkt., 10c; oz., 30c; ¼ lb., \$1.00.

*Your Crimson Beauty Tomatoes are very fine. Smooth, solid meat, and of excellent flavor.—MRS. R. L. WESSELMAN, Brookville, Ky.*

*The Crimson Beauty Tomatoes are very nice and bear well.—JAS. CATCOT, Stone Creek, Ohio.*

*I surely am glad to say something about that beautiful Crimson Beauty Tomato. I think they are just fine; they are so even in size and so smooth. I don't think they can be beat.—MRS. SINA MORRIS, New Martinsville, W. Va.*

*Your Crimson Beauty Tomato turned out to be a very fine and delicious tomato. They are perfect in shape, also a rapid growing tomato. The vines are full and promise a large crop.—GERALD BROWN, Blissfield, Mich.*

*I will say in regards to your Crimson Beauty Tomato, that they are the finest we ever raised. Plants stood 81 inches high. We hope to plant all Crimson Beauty next year.—MRS. CURTIS C. HAINES, Manchester, Tenn.*

*It is with pleasure that I recommend your Crimson Beauty Tomato as one of superior quality. In spite of the hot, dusty season, my tomatoes were fine. They are uniform in size, meaty and solid. It is my intention to use Crimson Beauty seed hereafter.—MRS. DR. M. CARTER, Burlington Junction, Mo.*

*The Crimson Beauty Tomatoes are very fine. The season has been very unfavorable, but they are smooth and of excellent flavor.—FRED W. CLARK, Dryden, Mich.*

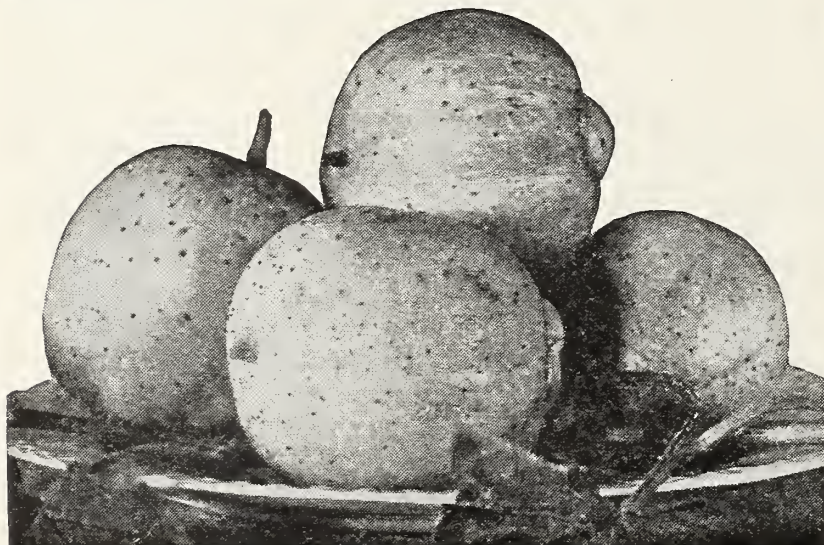
*In regard to Crimson Beauty Tomato; I wish to call this tomato "Garden's Pride," for they are certainly as fine a tomato as I ever raised. They are large, smooth red skin, with solid meat and fine flavor.—MRS. JAY PENNELL, Owasco, New York.*

## Little Giant Pop Corn

Popcorn is coming into almost universal use and the demand increasing every year. Our Little Giant is an improved strain of the Dwarf Rice variety, sometimes called Australian Hulless. It is the most prolific of all the pop corns; ears small but several to the stalk. When popped it is very tender and crisp, being practically free from the brown hull common to other varieties, and altogether it is the most delicious pop corn you have ever eaten.

The demand for this variety is always greater than the supply. Your grocer or local pop corn man will buy it of you at fancy prices. A small patch will bring the children or wife a handsome revenue, besides providing the family many a pleasant diversion during the long, cold, winter evenings. Large packets, 10c, postpaid; 1 lb., 25c; 4 lbs., 90c, postpaid.

*I find in your Crimson Beauty the best early tomato I ever raised; early as the Earliana and more solid; stands handling the best of any early tomato I ever raised. I recommend it to all gardeners; they cannot make a mistake in Crimson Beauty.—B. W. REESER, Royal Center, Ind.*



Lemon Cucumbers.



Little Giant Pop Corn.

## Lemon Cucumber

Grows about the size of large lemons and resembles them some in shape and color. Vines are the same as other varieties and cultivated in the same manner. They are very prolific and continue to bear throughout the season. The value of this cucumber is in its remarkable quality for slicing; flesh very thick with extremely few seeds; crisp and delicious flavor. No other variety we have ever tested equals the Lemon Cucumber for table use. We are confident a trial will lead to its continued cultivation in every instance. Pkt., 10c; oz., 20c; ¼ lb., 60c.





## Asparagus

Asparagus seed should be sown early in spring, on rich, light soil, in drills a foot or more apart, covering the seed an inch deep. Thin to three or four inches and keep the ground mellow and clear of weeds the first season by frequent hoeing. The next spring, transplant to a permanent bed, which should be in deep, mellow soil, made very rich by a liberal application of manure. One ounce will sow 40 feet of drill.

**BONVALLET'S GIANT.** This giant variety not only combines high productive power and lasting quality, but it withstands the rust, so frequently disastrous to asparagus beds. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 50c; lb., \$1.50, postpaid.

**CONOVER'S COLOSSAL.** A standard variety. Popular, productive, and of good quality. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.

**COLUMBIAN MAMMOTH WHITE.** Produces shoots which stay white as long as fit for use without earthing up or any other artificial blanching. Nearly all seedlings will produce clear white shoots. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.



Conover's Colossal.

## Wax Podded Dwarf Beans

Order Early and Avoid Disappointment.

**HODSON WAX.** Later than Golden Wax and most of the other yellow pod varieties, hence useful to insure a succession. Vines erect, compact, bearing pods well up from the ground. Pods a creamy-white yellow, 6 to 7 inches long, straight or slightly curved, flat but fleshy and of good quality. This bean is growing in favor. Large pkt., 10c; pt., 40c; qt., 70c, postpaid. Not postpaid, qt., 60c; 4 qts., \$2.25.

**CURRIE'S RUST PROOF BLACK WAX.** An excellent wax bean in every respect. Rust proof, tender, thick, flat pods of very good quality. Very little string in early stages, developing a little when nearing maturity. Fit for table use 47 days from planting. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.85.

**DAVIS WHITE WAX.** This bean is adapted alike for the canner, market gardener, shipper, or amateur. The dry bean is large, kidney-shaped and white in color, making it one of the best for cooking in a dry state. Pods are long, meaty, flat in shape, and of a beautiful yellow color and fair quality. Large pkt., 10c; pt., 40c; qt., 70c, postpaid. Not postpaid, qt., 60c; 4 qts., \$2.25.

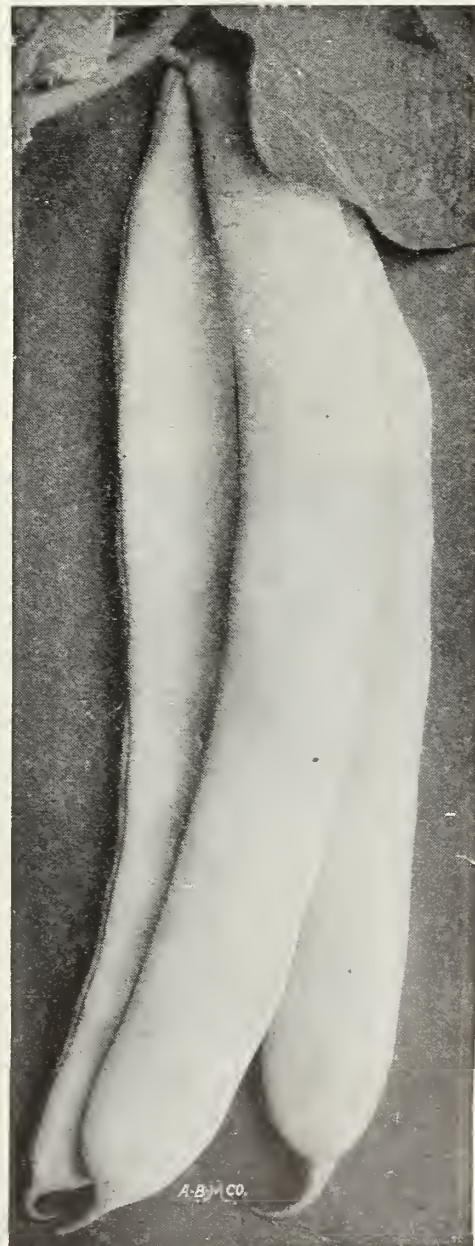
**GOLDEN WAX IMPROVED.** Rust proof, a great improvement over the old Golden Wax. Pods four to five inches long, broad, flat, golden yellow, very fleshy, and one of the best beans to use either as a snap or shelled. Ready for picking 45 to 47 days from planting. Large pkt., 10c; pt., 40c; qt., 70c, postpaid. Not postpaid, qt., 60c; 4 qts., \$2.25.

**GRENELL GOLDEN WAX.** Vines rather more upright and hardier than Golden Wax. Pods about five inches long, broad and flatter than Golden Wax. Seed similar to Improved Golden Wax. Very popular with market gardeners. Pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.85.

**KEENEY'S RUSTLESS WAX.** One of the most vigorous growers. Vines strong and prolific. Pods produced in abundance, about five inches long, stringless, light yellow, wax-like, attractive. Pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.85.

**PROLIFIC DWARF BLACK WAX.** The old standard Black Wax Bean. It is so good that it is worthy of special notice. The pods are round, brittle, of handsome golden yellow color and of buttery flavor. Pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.85.

**WARDWELL'S KIDNEY WAX.** One of the most desirable of the wax beans. Matures a little later than the Golden Wax; produces a large yield of long, nearly straight, broad, light golden yellow, very handsome pods. Large pkt., 10c; pt., 40c; qt., 70c, postpaid. Not postpaid, qt., 60c; 4 qts., \$2.25.



Golden Wax.





Stringless Green Pod.

round, solid, tender, and of excellent quality, suitable for table use, canning or pickling. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.85.

**REFUGEE**, or 1,000 to 1. The vines large, spreading, exceedingly hardy, with small, smooth leaves, very late, and bear long, cylindrical green pods of excellent quality. Highly esteemed for late planting and for use as pickles. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.85.

## Pole Beans

**KENTUCKY WONDER**. Vines vigorous, climbing well, and very productive, bearing its pods in large clusters; blossoms white; pods green, very long, often reaching 9 to 10 inches. Nearly round when young, and are very crisp, although as they reach maturity they become irregular and spongy. Dry beans long, oval, dun-colored. Large pkt., 10c; pt., 40c; qt., 70c, postpaid. Not postpaid, qt., 60c; 4 qts., \$2.25.

**DUTCH CASE KNIFE**. Vines moderately vigorous, climbing well, and excellent for a corn hill bean; leaves large, crumpled, and pods very long, flat, green in color, becoming creamy white later. Beans broad, kidney-shaped, flat, and white in color. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.90.

**LAZY WIFE**. One of the most productive and easily gathered of the Pole Beans, hence its very discourteous name. A most excellent bean for the home garden. The pods of medium dark green color are produced in great abundance and measure from five to six inches long. They are broad and thick; very fleshy and entirely stringless. The pods retain their rich, tender and stringless qualities until nearly ripe, and at all stages are peculiarly luscious. Pkt., 10c; pt., 40c; qt., 70c, postpaid. Not postpaid, qt., 60c; 4 qts., \$2.25.

**LARGE WHITE LIMA**. The large Lima is a general favorite wherever it can be cultivated, on account of its excellent flavor and productiveness. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.85.

## Dwarf Limas

**BURPEE'S**. The only bush form of the true, luscious, large lima. It is pronounced by all good judges as unquestionably the real Bush Lima. The bushes grow eighteen to twenty inches high, of stout growth and always erect. It is an immense yielder. Large pkt., 10c; pt., 40c; qt., 70c, postpaid. Not postpaid, qt., 60c; 4 qts., \$2.25.

**HENDERSON'S**. This is a bush form of the small Seiva pole bean. It is the original bush form of the pole beans. It is the most productive of any, and on the whole is a vegetable of great merit. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.90.

### ONCE A CUSTOMER, ALWAYS A CUSTOMER

It is our aim to furnish the best seeds that can be obtained. We make a conscientious effort to have them fresh, and in case of field seeds, to see they are well cleaned. We expect every trial order will make a permanent customer.



Kentucky Wonder.



Henderson's Bush Lima.



# Beets

Order Early and Avoid Disappointment.

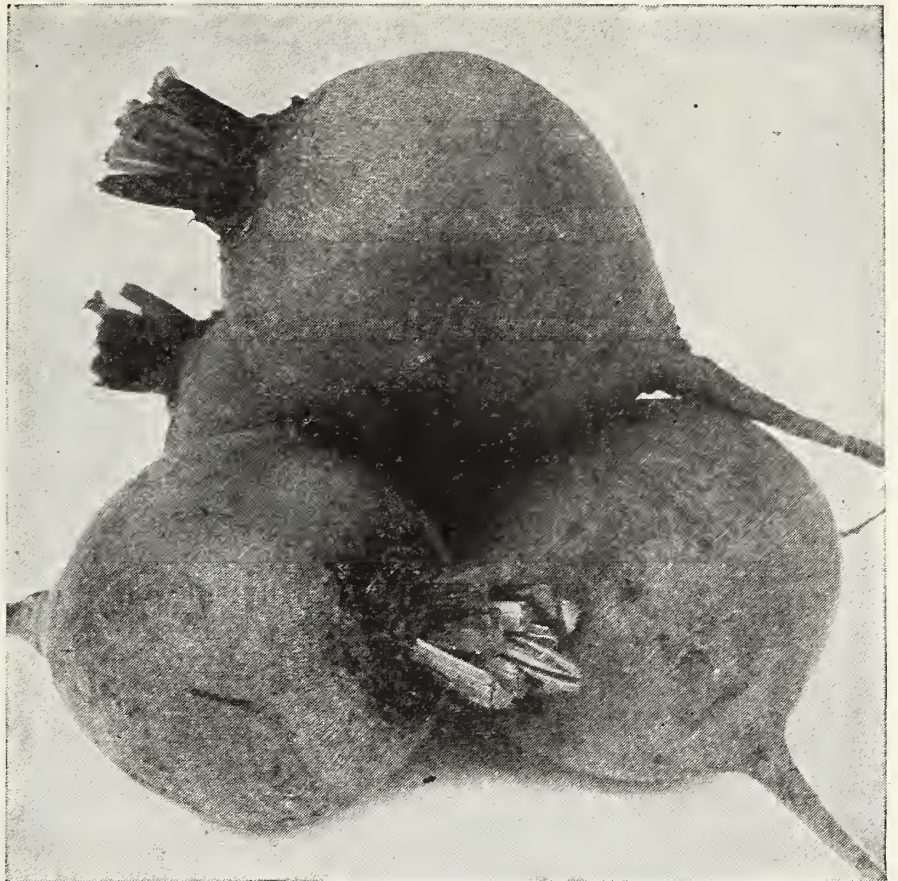
The best results are obtained on a deep, rich, sandy loam. If wanted very early, sow such sorts as Crosby's Egyptian and Detroit Dark Red in hot beds and transplant, cutting off the outer leaves. For general crop, sow in freshly prepared soil as soon as ground will permit, in rows eighteen inches apart, covering about an inch deep, and pressing the soil firmly over the seed. One ounce of seed will sow 50 feet of row; 5 to 6 lbs. for an acre.

**EXTRA EARLY ECLIPSE.** This is not only an extra early beet, but if sown late, it is valuable for winter use. Its rapid growth, extreme earliness, neat globe shape, with small top, and bright crimson color, make this a most popular sort with growers. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 35c; lb., \$1.25, postpaid.

**EARLY TURNIP BASSANO.** Tops large; leaf stems light red; leaves light green; roots large, flesh pink, zoned with white. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.25, postpaid.

**EDMAND'S EARLY BLOOD TURNIP.** The best sort for general crop. In quality one of the finest, exceedingly dark, shape globular, having only one tap root. Very popular with market men. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 35c; lb., \$1.25, postpaid.

**IMPROVED LONG DARK BLOOD.** Tops large, necks small, leaf stems and veins red, leaf green, roots large, tapering, growing even with the surface. Flesh dark red, zoned with lighter shade, tender and sweet and remaining so when kept till spring. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.25, postpaid.



Detroit Dark Red.

**DETROIT DARK RED.** A medium early globe-shaped beet of excellent quality. It is especially esteemed on account of its dark-red color, which extends entirely through the beet, and without the light colored rings seen in some varieties. The beets are smooth and handsome. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb., \$1.45, postpaid.

**CROSBY'S EGYPTIAN.** Much in demand by market gardeners for forcing and early outdoor sowing. This beet is perfect in shape, and deepest red color. Equally as good for bunching as for the fall market. Its fine color and superior quality make this one of the best beets. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb., \$1.40, postpaid.

## Swiss Chard or Spinach Beet

**SILVER LYONS SWISS CHARD.** This is the finest white-ribbed variety in cultivation. Leaves grow twelve to fourteen inches long. Stems and mid-ribs white, brittle and tender. These are cooked the same as asparagus or pickled. A most valuable plant in any garden. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 55c; lb., \$2.00, postpaid.

## Mangel Wurzel AND SUGAR BEETS

**MANGELS FOR STOCK.**—No more profitable crop can be grown than Mangels for cattle and swine. Every farmer should have one or two acres of root crops every year. These might consist of Mangels, Carrots, Turnips and Rutabagas, but at least part should be Mangels.

No other acre on the farm would return better dividends. Under proper cultivation and conditions, a yield of 40 tons per acre is not unusual, and this is equivalent in feeding value to 130 bushels of corn. These feeds help to keep the stock in a healthy condition, besides affording them a variety of feed. One ounce for 50 feet of drill; 5 lbs. for an acre.

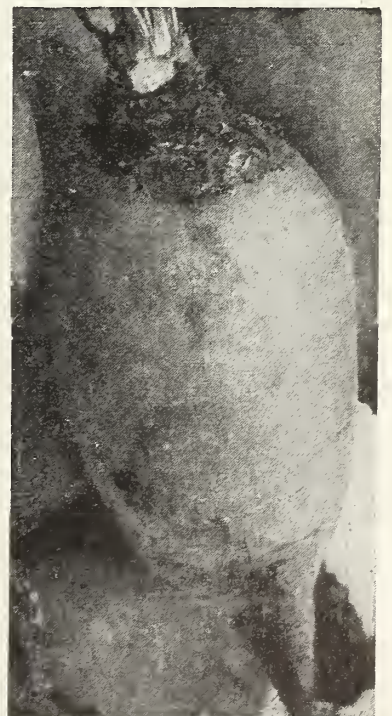
**MAMMOTH LONG RED.** On good soil sometimes grows eighteen inches long. Dark leaves; skin bright dark red; flesh white, with veined rings of rose pink. An excellent keeper; nutritious and milk-producing. It grows to an enormous size, out of the ground. Enormously productive and profitable, if grown on rich, deep soil. An excellent keeper. Has no superior and will yield more tons per acre than any other variety. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 90c, postpaid.

**GOLDEN TANKARD.** A yellow-fleshed variety highly prized by dairymen for milk-producing qualities. Sheep and other stock feed on this variety and thrive. The roots are of large diameter, tapering quickly at the bottom, which is quite broad, with only a small tap root. Grows largely

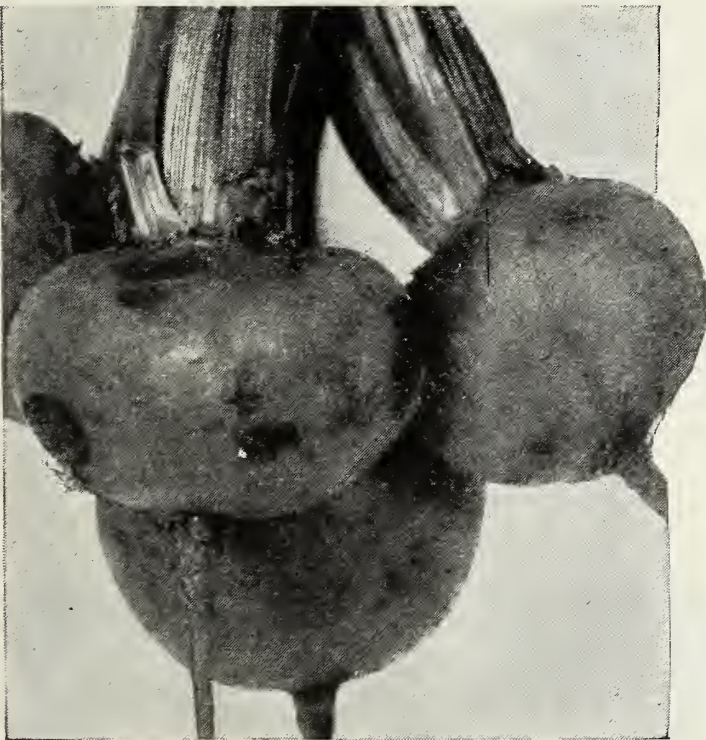
above the soil and is easily harvested. Yields an enormous bulk on good land, and can be grown closely in rows. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 90c, postpaid.

**GIANT HALF-SUGAR.** This unites the large size of the mangel with the greater feeding value of the sugar beet. The roots average ten to twelve inches, and the outline is that of a broad, thick wedge. The upper portion is of a soft, bright pink, shading lighter toward the bottom, where the lower portion for about one-third the length is white. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 90c, postpaid.

**VILMORIN'S IMPROVED SUGAR.** In general, the most desirable beet for the factory is the one containing the largest percentage of sugar. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 90c, postpaid.



Mangel Wurzel.



Crosby's Egyptian.

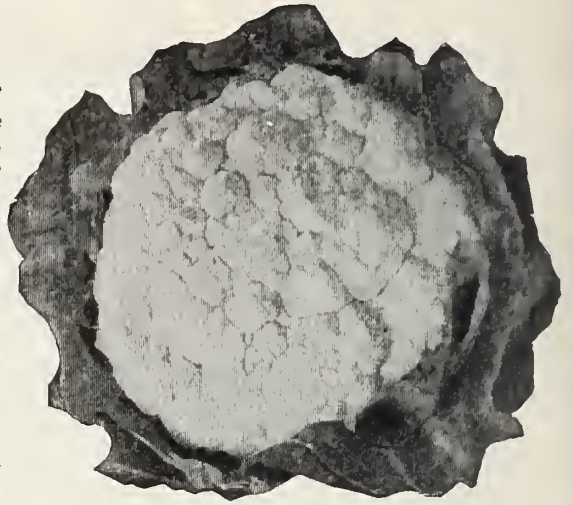




Brussels Sprouts.

## Broccoli

One ounce will produce about 2,000 plants. Start your early crop in hot-bed or in the house middle of February, covering the seed about one-half inch. Transplant to cold frame as soon as the plants are large enough. Set them three to four inches apart. Remove glass part of each day, weather permitting, to harden the young plants, and set permanently in open as soon as danger of frost is past. For general crop sow in open ground early in June in hills three feet apart. Insects are quite troublesome to plants grown in open ground. Therefore, after sowing the seed, sprinkle a small quantity of tobacco dust over the seed and keep young plants free from insects.



Broccoli.

**EARLY WHITE FRENCH.** The best and most satisfactory variety. Plants very hardy, vigorous and easily grown. Heads white, compact, hard and of good quality. Pkt., 10c; oz., 40c; ¼ lb., \$1.40, postpaid.

## Brussels Sprouts

One ounce of seed will grow from 1,500 to 2,000 plants. The culture is same as for Broccoli. Brussels Sprouts (see picture) is a delicious vegetable, producing miniature heads from each side of the center stalk. These heads are a great delicacy boiled in the same way as cauliflower. Sow the seed middle of May in seed bed, transplant and cultivate same as cabbage. Crop is hardy and improved by frosts. One plant will yield from one to two quarts of heads.

**IMPROVED BRUSSELS SPROUTS.** Dwarf. Of very early and dwarf habit, covered closely with miniature cabbages. Delicate and toothsome. Pkt., 10c; oz., 30c; ¼ lb., \$1.00, postpaid.

## Cauliflower

For earliest Cauliflower, plant seed in greenhouse or boxes in the house during January or February. Transplant to flats or cold frames 2 to 3 inches apart. Set in open ground as soon in spring as land can be prepared. Soil should be well supplied with humus and moisture. For late Cauliflower to mature during pickling season, start plants in open ground like late cabbage and handle same as that crop. Tie the leaves over the heads to protect them from the sun. The seed we offer is our own direct importation from the most celebrated grower in Denmark. It is the best the world affords and we call particular attention to our very reasonable prices. One ounce of seed produces 1,500 plants.

**EXTRA EARLY DWARF SNOWBALL.** The earliest of all cauliflower, our strain representing the highest results yet attained in the culture of this most valuable plant. Especially adapted for forcing or wintering over for early crop. In size, compactness, and color it represents quality of the highest type. Heads frequently reach 9 to 10 inches in diameter, with depth in proportion. The plant is compact, with few short leaves and well suited for close planting. Pkt., 15c; ¼ oz., 60c; oz., \$2.00; ¼ lb., \$7.00, postpaid.

**EXTRA EARLY DWARF ERFURT.** A thoroughbred strain of a remarkably sure heading early variety. Is of dwarf habit, with short outside leaves, but not as early as the Early Snowball. Heads of medium to large size, curd white, very deep and of finest quality. This is one of the most valuable sorts for both home and market garden. Regardless of price, there is positively no better seed grown than we are offering. Pkt., 15c; ¼ oz., 50c; oz., \$1.75; ¼ lb., \$6.00, postpaid.

**DRY WEATHER or DANISH GIANT.** The grower had but a limited amount of what he termed "extra select" seed that he offered at an extra price, and our stock is from this lot. This new variety has been fully tested in America and found especially desirable and particularly so in dry situations and seasons. Is a very sure header and a great drought resister. Head large, solid, pure white and second early. Like all other Cauliflower, it requires manure and culture, but will succeed with less rainfall than any other sort. A part of all acreage should be planted to this variety. Pkt., 15c; ¼ oz., 75c; oz., \$2.50; ¼ lb., \$9.00, postpaid.

**AUTUMN GIANT.** A valuable late variety with long stems, succeeding best in Southern localities. Heads are very large, white, firm, and compact. Plant should be started and transplanted early to insure full development. Pkt., 15c; ¼ oz., 35c; oz., \$1.25; ¼ lb., \$4.75, postpaid.

ORDER SEEDS EARLY AND AVOID DISAPPOINTMENT



Cauliflower.



# Cabbage

## THE IMPORTANCE OF GOOD CABBAGE SEED.

Cabbage growers realize that of all the seeds used, cabbage is the last one they can afford to take chances on, and there is probably no other seed in the list with such a variety of quality on the market as of cabbage. With the exception of the Danish types, our seed is grown on Long Island, where it has been proven conditions are better suited than any other part of the country. Long Island seed commands a premium, and for this reason many seedsmen handle the cheaper grades grown in Europe. No other costs more, and very little of it as much, as that we offer, yet our prices are no higher than others ask for European seed.

The best Danish types are grown in Denmark, and every pound we handle is from the best grower in that country.

All that Cabbage requires is the soil to be rich, deep, well-drained, and abundantly manured. For the early kinds, plant 30 inches between the rows and 16 inches between the plants. For the late kinds, three feet between the rows and two feet between the plants. For very early use, sow in January or February, in hotbeds. Set out when the plants are strong enough in other hot beds, or set in cold frames in March. Transplant when danger of frost is past to the open ground. An ounce of seed produces 1,500 plants; one-half pound to transplant for an acre.

**How to Destroy Cabbage Worms.** Slug Shot can be used lightly or heavily and the cabbage suffers no harm. The cabbage forms its heads by the interior growth; it throws off its earlier and outer leaves, and no dust can enfold within its head. Apply Slug Shot with a duster, seiving it over the plants or full grown cabbages. The powder is very fine and goes a long way in field or garden. Not prepaid, 5-lb. pkg., 35c; 10 lbs., 65c. Tin Duster, each, 35c.

Owing to the severe winter of 1917-1918, 75 to 90 percent of cabbage stock stored for 1918 planting was frozen, resulting in the lightest seed crop ever known. In consequence many varieties are almost impossible to obtain and prices relatively high.

## Extra Early Varieties

**EXTRA EARLY EXPRESS.** The earliest cabbage known. Heads small, solid, less pointed than the Jersey Wakefield. May be planted close together. Our seed stock is an extra choice strain. Pkt., 10c; oz., 75c; ¼ lb., \$2.75, postpaid.

**TRUE JERSEY WAKEFIELD.** A standard variety for early market or home use. This popular cabbage has almost superseded the Early York and Ox Heart, so popular years ago. Heads very solid, stalk short, foliage dark green. Pkt., 10c; oz., 75c; ¼ lb., \$2.75, postpaid.

**EARLY LARGE WAKEFIELD.** An improved strain of the Early Jersey Wakefield and possessing many of the characteristics though larger and several days later. An excellent sort. Pkt., 10c; oz., 50c; ¼ lb., \$1.90, postpaid.

**CHARLESTON WAKEFIELD.** This is a sport of the Jersey Wakefield. Heads much larger and less pointed than the original. Owing to the great popularity of this cabbage among truckers of the South, especially around Charleston, S. C., it was named Charleston Wakefield. Pkt., 10c; oz., 50c; ¼ lb., \$1.90, postpaid.

**COPENHAGEN MARKET.** The earliest large round-headed cabbage yet produced. Exceptionally large for so early a variety, short stem, few outer leaves. A most excellent sort for home and market garden. Copenhagen market is a vigorous grower and an excellent keeper. Stands longer in the field without bursting than any other early variety. Uniform in size and shape. Pkt., 10c; oz., 60c; ¼ lb., \$2.25, postpaid.

## Medium Early Varieties

**ALL SEASONS.** One of the largest and most desirable of the second early sorts. Plant vigorous, sure-heading. Head large, somewhat flattened; nearly round, solid and best quality. Good for early summer and autumn use and regarded as one of the most desirable for kraut. Pkt., 10c; oz., 60c; ¼ lb., \$2.00, postpaid.



Copenhagen Market.

## MEDIUM EARLY VARIETIES—Continued.

**EARLY DANISH ROUND HEAD.** This new cabbage is very heavy and solid, like the "Ballhead" type of cabbage; makes a fine, large, globe-shaped head with well-developed outside leaves, but is very much earlier in maturing than any of the Danish cabbages; in fact, as early as Early Jersey Wakefield, and will give a much heavier yield per acre than that variety. It is short-stemmed, the heads being produced almost on the ground. The leaves are tightly folded around each other, which permits close setting of the plants. The heads all mature at the same time. Pkt., 10c; oz., 60c; ¼ lb., \$2.25, postpaid.

**ALLHEAD.** Without doubt the finest of the second early cabbages. A good keeper and one of the surest croppers. Heads large, flat but deep, uniform in size. Desirable for kraut. By late planting can be used as winter cabbage. Pkt., 10c; oz., 50c; ¼ lb., \$1.75, postpaid.

**EARLY WINNIGSTADT.** A very popular variety; heads pointed, solid, fine grain, tender and good size. Can be planted early or late and make a good winter cabbage. Pkt., 10c; oz., 50c; ¼ lb., \$1.75, postpaid.

## Late Varieties

**PREMIUM LATE FLAT DUTCH.** The best known and most popular of all the late flat Dutch strains. Heads large, thick and solid. Short stalk, foliage dark green with reddish tinge. The best of keepers. Has no useless outer leaves and grows low with short stem. It cuts white and crisp, the flavor is excellent, with no stringiness. Pkt., 10c; oz., 75c; ¼ lb., \$2.75, postpaid.

**DANISH BALL HEAD CABBAGE.** For a winter cabbage for early spring sales some of our local gardeners consider this variety excellent. It has been selected and perfected for more than fifty years by Danish gardeners, who prize it highly and grow it almost exclusively for winter cabbage, and annually export large quantities. It is a hard heading, long keeping cabbage. Heads round as a ball, solid, fine grained, has few outer leaves, tender, crisp, and of excellent flavor. Pkt., 10c; oz., 90c; ¼ lb., \$3.25, postpaid.

**BURPEE'S SUREHEAD CABBAGE.** This famous cabbage was first introduced 40 years ago (1877). It produces a large, round, flat head of the Flat Dutch type, and is remarkable for its certainty to head. The heads are remarkably uniform, extremely hard, fine in texture, and ordinarily weighs from 10 to 15 lbs. each. Pkt., 10c; oz., 50c; ¼ lb., \$1.75, postpaid.

## BRILL'S WONDERFUL RED.

An improved strain of Red Drumhead. Heads large, round and thick. Very dark red throughout. Considered the finest strain of red cabbage yet introduced. Pkt., 10c; oz., 50c; ¼ lb., \$1.75, postpaid.

ASK FOR SPECIAL POUND PRICES ON CABBAGE SEED.



Danish Ball Head.

*Your Crimson Beauty Tomato is fine flavor, very smooth, good bearing, beautiful color, and a perfect tomato.—MRS. GEORGE ALLGIRE, Camden, Mich.*





Oxheart Carrots.

**DANVERS HALF LONG.** Grown largely on account of its great productiveness and adaptability to all classes of soil. Tops of medium size, coarsely divided. The smooth, handsome roots are deep orange, of medium length, tapering uniformly to a blunt point; flesh sweet, crisp, tender, and of a deep orange color. Although the roots of this variety are short, they produce as large a bulk as the longer field sorts and are more easily harvested. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 45c; lb., \$1.60, postpaid.

## Stock Carrots

**WHITE BELGIAN.** There are other stock carrots, but none approaching this variety for yield, keeping qualities and feeding value. It attains a length of 12 inches, growing about one-fourth to one-third above ground, making it easy to gather. It is a great favorite with stock feeders. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.

*"On account of bad drought our tomatoes are all late, but we now have some fine large Crimson Beauty which for size and smoothness are ahead of all others, and we have six varieties."—P. R. KIMMEL, Canfield, Ohio.*



Golden Self-Blanching Celery.

# Carrots

This is a vegetable deserving to be more generally cultivated, both for use upon the table and for stock feeding purposes. There is no more healthful crop root. For early, sow in spring as soon as the ground can be worked, in drills 15 inches apart. For main crop, sow from the middle of May to the first of July. Hoe often and deeply between the rows. Light, sandy loam, richly manured, is the best soil. It is necessary to sow carrots quite thickly on account of the young plants not having sufficient strength to come through the ground when sown thinly. Cover one-fourth to one-half inch deep and see to it that the soil is well firmed about the seed. Do not let the weeds get a start. Thin to 5 or 6 inches apart in the row. Gather and store for winter use like beets or turnips. One ounce will sow about 125 feet of drill.

**LONG ORANGE.** The most popular of the older sorts for farm use on mellow soil. An improvement obtained by years of careful selection of best formed and deepest colored roots. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb., \$1.40, postpaid.

**GUERANDE, or OXHEART.** Tops small for the size of the roots, which are comparatively short but often reach a diameter of five inches, terminating abruptly in a small tap root. Flesh bright orange, fine grained and sweet. This variety is especially desirable for soil so hard and stiff that longer rooted sorts would not thrive in it. When young excellent for table use, and when matured equally good for stock. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 45c; lb., \$1.60, postpaid.

**CHATENAY.** Tops medium sized; necks small; roots tapering slightly but uniformly stump-rooted and smooth; color deep orange-red; flesh very crisp and tender. Although this is a medium early sort, it furnishes roots of usable size as early as any, is a heavy cropper and is undoubtedly one of the best for both market and private garden, while its great productiveness makes it very desirable as a field sort. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 45c; lb., \$1.60, postpaid.



Long Orange Carrots.

## Celery

One ounce will produce about 2,500 plants and sow about 200 feet of row. Sow the last of March or early in April, in an open border, in rich, mellow ground in shallow drills, watering freely in dry weather. By rolling or pressing in the seed, the result will be more satisfactory than when only covered. Cut the tops off once or twice before planting out, to make them stocky. When the plants are 5 or 6 inches high, transplant the dwarf varieties 3 feet and the taller 4 feet between the rows; plant 6 inches apart in the rows. Cultivate well, and when large enough, blanch by earthing up. The first operation is that of "handling," generally done by the beginning of September. After the soil has been drawn up with the hoe, it is drawn around each plant by the hand to keep the leaves firm in upright position and prevent spreading. When the plants have become "set" in an upright position and the celery is wanted for early use, they should be "banked." This is done by throwing up the soil as close to the plants as possible with a plow and finishing it with a spade, bringing the earth up nearly to the tops of the plants. The method employed now for protecting it is by covering the tops of the banks with water-proof felt paper.

**FRENCH-GROWN GOLDEN SELF-BLANCHING.** Many seedsmen handle only American-grown celery seed, though it is well known that the best seed grown is that from France, where specialists have brought it to the very highest state of perfection. This seed, however, costs several times as much as the best American seed. Our stock is from the most celebrated growers and is the best that can be obtained. Pkt., 10c;  $\frac{1}{2}$  oz., 60c; oz., \$1.00, postpaid.

**AMERICAN-GROWN SELF-BLANCHING.** Our American seed is of the highest quality, grown under the supervision of one of the best specialists in the country. Pkt., 5c;  $\frac{1}{2}$  oz., 25c; oz., 40c;  $\frac{1}{4}$  lb., \$1.50, postpaid.

**WHITE PLUME.** The peculiarity of this leading variety is that the inner leaves and heart are naturally white, so that by closing the stalks, either by tying or by drawing the soil close about the plants and pressing it together with the hands, the blanching is completed. It is the earliest celery in cultivation, but will not keep longer than the holiday season. Pkt., 5c; oz., 25c;  $\frac{1}{4}$  lb., 75c; lb., \$2.50, postpaid.

**SOUP OR CUTTING CELERY.** This variety is adapted for sowing thick in rows and cutting when three or four inches high, to use for soup flavoring. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 60c; lb., \$2.00, postpaid.

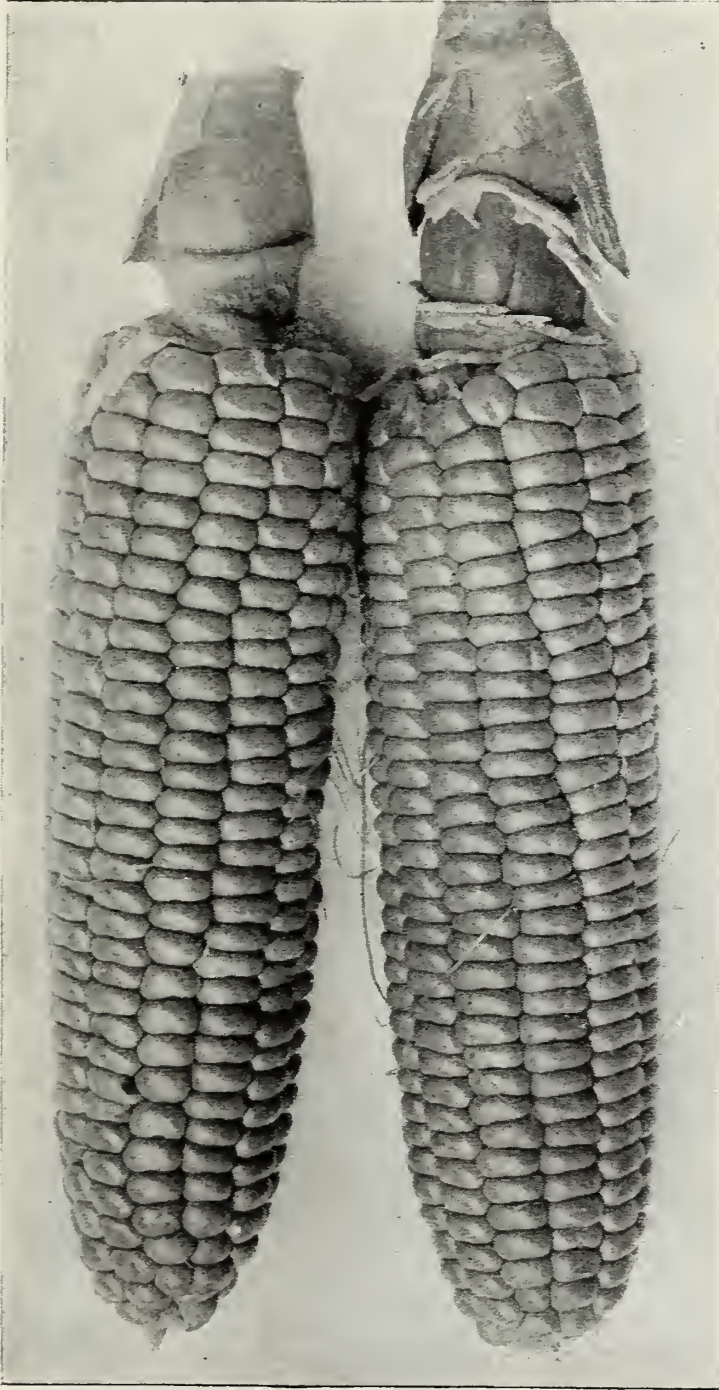
**GIANT GOLDEN HEART.** Produced by careful selection and high culture from Dwarf Golden Heart by one of the best celery growers in the country. Unequaled in quality, appearance and large size. Highly recommended for both market and home growing. Pkt., 5c;  $\frac{1}{2}$  oz., 15c; oz., 20c;  $\frac{1}{4}$  lb., 60c; lb., \$2.00, postpaid.



# Corn, Sweet or Sugar

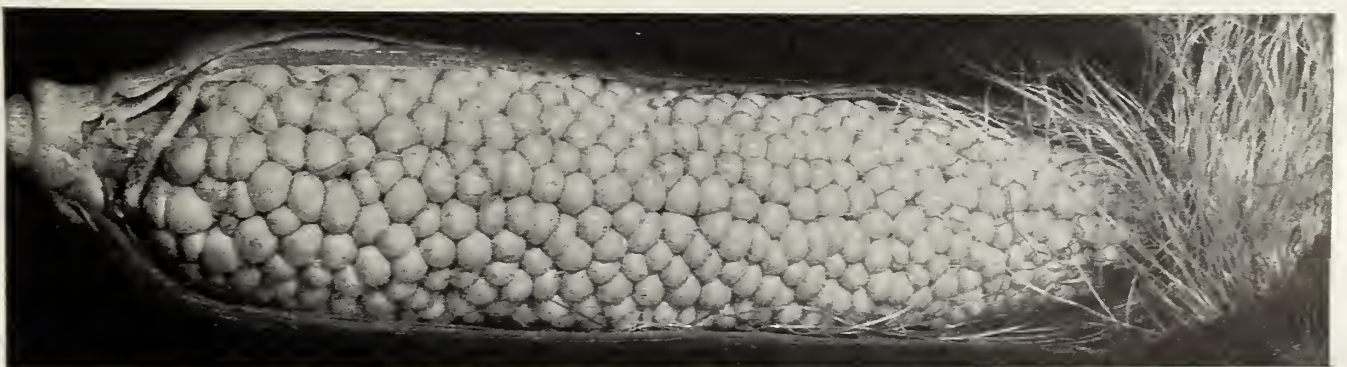
On account of the general low viability of seed from the 1917 crop, sweet corn did not make a normal crop the past season, with the result that the supply matured for seed from the 1918 crop is limited in all parts of the country. In fact, one of the most important growing sections has practically no surplus stock to offer. The quality of seed is much better than that used the past season, but supplies are very limited. Gardeners and others intending to plant any considerable acreage should secure their seed early.

Our stock is strictly Northern grown and from a district that is famous for the quality produced.



Golden Bantam.

**COUNTRY GENTLEMAN.** We have a stock of this excellent sweet corn that is exceptionally good. There is no sweet corn that compares with the Country Gentleman for sweetness. It is the variety par excellence where quality is desired. Market gardeners who make a specialty of growing for hotels and high class restaurant trade use this as a main crop variety in preference to any other. For home use it will be found superior and it is very productive. The fact that it is a favorite variety with canners proves its merit. Large pkt., 10c; pt., 30c; qt., 50c, postpaid. Not postpaid, qt., 40c; 4 qts., \$1.40.



Country Gentleman.

## GOLDEN BANTAM.

Although very early, it possesses the valuable quality of being one of the sweetest and richest. It may be planted thickly as late as July 15th. By successive planting it may be had for table use from July 20th on. The grains are of a rich, golden yellow, of fine flavor. Pkt., 10c; pt., 30c; qt., 50c, postpaid. Not postpaid, qt., 40c; 4 qts., \$1.50.

## MAMMOTH WHITE CORY.

Considering its exceptional earliness, this corn is extra large. The stalks grow about four feet high, each bearing 2 ears of good quality. Large pkt., 10c; pt., 25c; qt., 45c, postpaid. Not postpaid, qt., 35c; 4 qts., \$1.25.

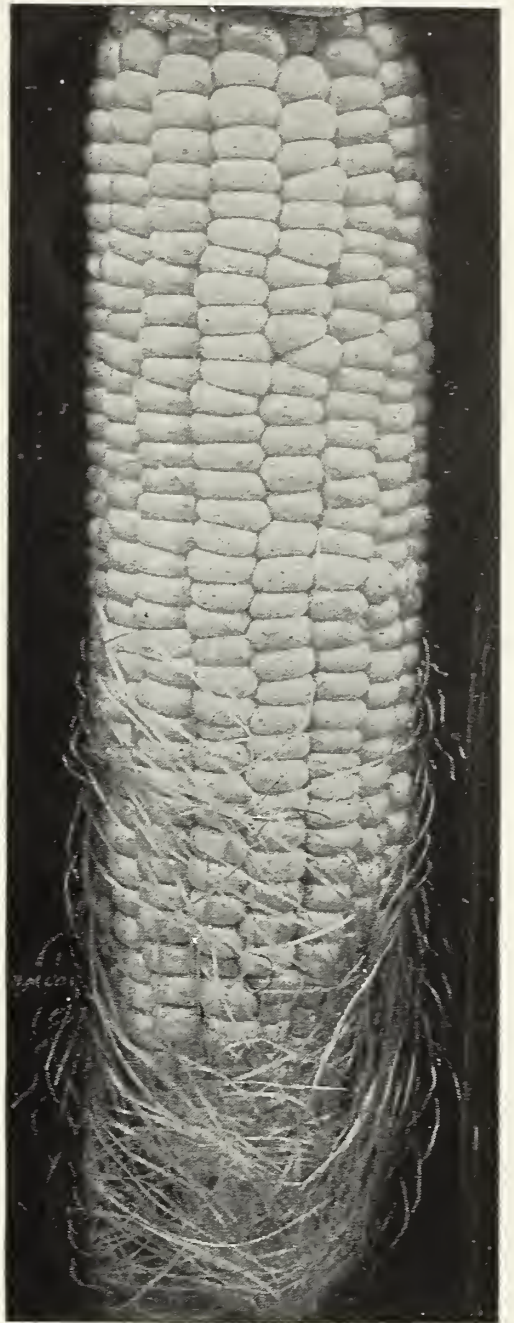
## EARLY MINNESOTA.

An old favorite. While not as early as the Mammoth White Cory, it is of excellent quality, having ears 8 to 10 rowed, and very productive. The latter is the most pronounced desirable feature. Large pkt., 10c; pt., 25c; qt., 45c, postpaid. Not postpaid, qt., 35c; 4 qts., \$1.25.

**BLACK MEXICAN.** This corn, when in condition for the table, cooks remarkably white; but the ripe grain is black or bluish-black. It is surpassed by none in tenderness. For family use it is considered by many the most desirable of the medium late sorts. It does especially well for second early. Large pkt., 10c; pt., 30c; qt., 50c, postpaid. Not postpaid, qt., 40c; 4 qts., \$1.50.

**EARLY EVERGREEN.** The ears of this new corn grow 8 inches long, with mostly 14 to 18 rows. This is a magnificent kind for market gardeners and for main crop in every home garden. It ripens 10 to 12 days in advance of Stowell's Evergreen and is equally as good for all purposes. The kernels are very sweet and tender, and when eaten from the cob break off free from husky tips so common in some otherwise fine table corns. Large pkt., 10c; pt., 30c; qt., 50c, postpaid. Not postpaid, qt., 40c; 4 qts., \$1.50.

**STOWELL'S EVERGREEN.** A favorite with canners and market gardeners for late use and especially for the kitchen garden. Ears large, kernels very deep, tender and of the most delicious sweetness; very productive. Large pkt., 10c; pt., 30c; qt., 50c, postpaid. Not postpaid, qt., 40c; 4 qts., \$1.50.



Stowell's Evergreen.



# Select Cucumbers

Our Cucumber seed is grown in a district famous for this crop, and seed saved from only the more perfect specimens. No greater care can be taken to produce select seed than has been exercised in saving the stock we offer. Cucumbers succeed best in warm, moist, rich, loamy ground. They should not be planted in the open air until there is a prospect of settled warm weather. Plant in hills about 4 feet each way. The hills should be previously prepared by mixing thoroughly with the soil in each a shovelful of well-rotted manure. Sprinkle the vines liberally with Slug Shot to protect from bugs, and when all danger from insects is past, thin out the plants, leaving three to four of the strongest to each hill. One ounce of seed will plant about 50 hills; two pounds will plant an acre.

**DAVIS PERFECT.** A splendid cucumber for the home garden and for the truck farmer. Possesses all the merits of the best slicing varieties, wonderfully uniform in shape and exceedingly productive. Pkt., 5c; oz., 15c; ¼ lb., 40c; lb., \$1.50, postpaid.

**BOSTON PICKLING.** This is a very productive variety that is extensively grown for pickles. The vines are vigorous. The fruits are bright green, of medium size, very smooth and symmetrical. The flesh crisp and tender. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.

**CHICAGO, or WESTERFIELD PICKLING.** A variety esteemed and grown extensively for the large pickling establishments. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.

**EARLY CLUSTER.** Vine vigorous, producing the bulk of the crop near the root and in clusters. Fruit short, with uniformly thick end, dark green, but paler at blossom end. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.

**KLONDYKE.** A medium early, white spined cucumber of handsome, very dark green color and of excellent quality for slicing. The vines are very hardy and productive. The fruits when mature are about eight inches long and are uniform in size and shape. Color dark green. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.

**JERSEY PICKLE.** Sixty days to make pickles. It is productive, and said to "green" better than any other variety, and to "hold color." Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.

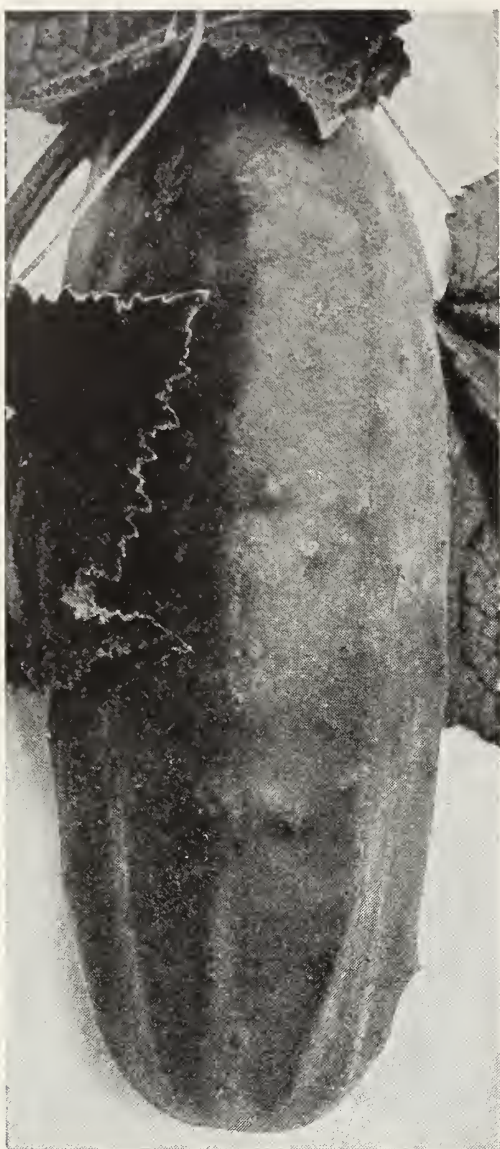
**IMPROVED LONG GREEN.** This is an old, well known variety, attaining a length of about 12 inches. A favorite for sweet pickles; also desirable for slicing. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid.

**EVERGREEN WHITE SPINE.** An improved strain of the well known White Spine, and a favorite with market gardeners both for forcing and outdoor culture. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid.

**ARLINGTON WHITE SPINE.** This variety is used for forcing in frames and hothouses. Long fruits of dark green color. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid.

**EARLY FRAME or SHORT GREEN.** An excellent sort for table use and for pickling. Fruit straight, handsome, smaller at each end, bright green; flesh tender and crisp and makes fine pickles. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00, postpaid.

**LEMON.** By all odds the best cucumber for slicing yet produced. Size and color of a large lemon. Flesh thick, crisp and delicious flavor. Very prolific and produces throughout the season. We unhesitatingly recommend it in every garden. Pkt., 10c; oz., 20c; ¼ lb., 60c, postpaid.



Evergreen White Spine Cucumber.

## Endive

Endive is usually grown for late fall and winter use, but is all right for any season of the year. It is very popular with the German trade and is sometimes called Winter Lettuce, or "Winter Salad." Plant seed in August or September in drills about as you would lettuce, thin out plants to ten or twelve inches apart. It is blanched for use by gathering over the center of the plants.

**BROAD LEAVED.** This is remarkable for its beauty more than quality. The best market variety, as the plant is so attractive that it brings the highest price. Pkt., 5c; oz., 15c; ¼ lb., 50c; lb., \$1.75, postpaid.

**GREEN CURLED.** One of the hardiest; beautiful curled dark green leaves; blanches white and crisp; best quality. Pkt., 5c; oz., 15c; ¼ lb., 50c; lb., \$1.75, postpaid.

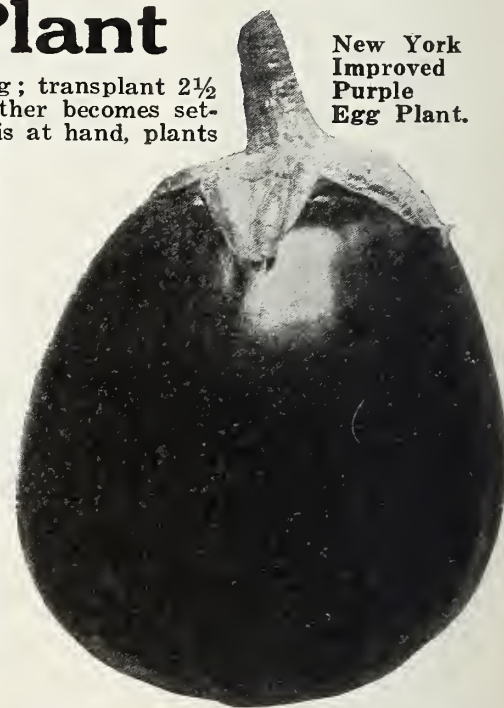


## Egg Plant

Sow in hotbed early in spring; transplant 2½ feet apart each way after weather becomes settled and warm. If no hotbed is at hand, plants may be started in pots or boxes. The potato beetle is very fond of the plants. Paris Green, also Slug Shot, applied as to potatoes, will keep them in check. 1 oz. for 1,000 plants.

**NEW YORK IMPROVED PURPLE.** This variety is a general favorite both for market and private use. Plants large, spreading foliage light green; fruit very large, oval; color a splendid dark purple. Pkt., 10c; oz., 40c; ¼ lb., \$1.25, postpaid.

**BLACK BEAUTY.** About the earliest of all Egg Plants. Fruit nearly as large as the Improved Purple, good size, skin dark purple, and holds its color a long time. Flesh white, fine grained and delicious. Pkt., 10c; oz., 40c; ¼ lb., \$1.50, postpaid.



New York Improved Purple Egg Plant.

## Dandelion

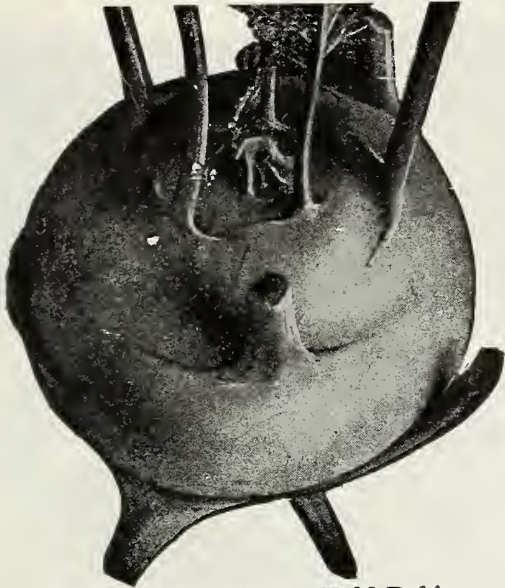
One of the earliest spring vegetables, much esteemed for a delicate salad. Sow seed in spring when soil is warm, in rows a foot apart, one-fourth inch deep. The quality is much improved by blanching, which is easily done by covering the plants with boards. Let the plants remain over winter. Ready to cut early following spring.

**FRENCH THICK-LEAVED.** Pkt., 10c; ½ oz., 30c; oz., 50c, postpaid.

## Dill

An easily cultivated plant highly prized by our grandmothers. The plant and seeds are used in pickles and soups. The seeds possess a flavor similar to caraway and used in cakes. Pkt., 5c; oz., 15c; ¼ lb., 50c, postpaid.





Early Purple Vienna Kohl-Rabi.

## Kohl Rabi

Kohl-Rabi is a vegetable intermediate between a cabbage and a turnip and combines the flavor of both. The edible part is a turnip-shaped bulb, caused by a swelling of the seed. When used for the table, should be cut when small, as it is then very delicate and tender. Sow seeds in rows 18 inches apart, thinning out when large enough.

**EARLY WHITE VIENNA.** Very early, small, handsome white bulb. Best early variety for the table. Pkt., 10c; oz., 25c;  $\frac{1}{4}$  lb., 75c, postpaid.

**EARLY PURPLE VIENNA.** Nearly identical with the above, except in color, which is a bright purple, with the leaf stems tinged with purple. Pkt., 10c; oz., 25c;  $\frac{1}{4}$  lb., 75c, postpaid.

## Leek

One ounce of seed to 150 feet of drill.

Sow the seed out-of-doors in June and thin out to four inches apart. Leek is a vegetable of unusual merit, and is not half appreciated by the American people, while it is regarded as a great favorite by many of our foreign population.

**AMERICAN FLAG.** This is the sort chiefly grown by market gardeners. It is of excellent quality, mild flavor and uniform. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 50c, postpaid.



American Flag Leek.

## Lettuce

If there is any Lettuce seed on the market produced under conditions likely to afford better crops than ours, we have not heard of it. For early spring use sow in September and protect through the winter in cold frames the same as cabbages, or sow in hot beds in March, and

transplant to open ground as soon as it can be worked. For late supplies sow in open ground as soon as season will permit, in rows one foot apart; thin out plants to one foot apart in rows. If sown every two or three weeks to the middle of August, it may be had in perfection the entire season. One ounce will sow 125 feet of drill and produce 3,000 plants.

## Cabbage or Heading Varieties

**BIG BOSTON.** A splendid lettuce for market gardeners, either north or south. Leaves are light green, nearly smooth except the outside edges, which are somewhat ruffled. Forms large and very compact heads that are especially suitable for shipping, for which purpose it is planted very largely in the South. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.10, postpaid.

**CALIFORNIA CREAM LETTUCE.** A variety of cabbage lettuce, with round, solid heads. Outside, the heads are a medium green slightly marked with small brown spots; within, the leaves are of a very rich, creamy-yellow color, most refreshing in appearance; particularly rich and buttery to the taste. It is medium early and the best summer variety of head lettuce. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.

**HANSON.** (Seed white). One of the most desirable late summer lettuces. The plant is compact and forms a large, cabbage-like head which remains in condition longer than most heading sorts. Outer leaves bright yellowish-green, somewhat crumpled and frilled at edge. Inner leaves white; very crisp and sweet. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.10, postpaid.

**MAY KING.** Earliest of head varieties. Excellent for outdoor and for forcing. Heads compact. Inner leaves blanch to a golden-yellow. Very tender and buttery. We recommend this as one of the best for both home and market gardeners. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.20, postpaid.

**SALAMANDER.** One of the most satisfactory outdoor varieties. Resists dry weather, heads large, light green, not very solid; inner leaves finely blanch. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.

**DENVER MARKET.** Bright green, clustering, loose, medium size head, inner leaves finely crumpled and well blanch. Desirable outdoor or forcing variety. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb., \$1.50, postpaid.



Big Boston Lettuce.

### CABBAGE OR HEADING VARIETIES—Continued.

**NEW YORK, or WONDERFUL.** (Neapolitan Cabbage). The largest head lettuce produced. Heads 15 to 18 inches across. Blanches beautifully, crisp, tender, free from bitterness. For an outdoor, long season variety, it has no rival. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.20, postpaid.

**COS LETTUCE (Romaine).** Cos Lettuce is grown extensively in Europe, but not so well known in this country as the Cabbage Lettuces. They are, however, coming rapidly into use, and wherever tried are considered best of all. Leaves long, narrow, spoon-shaped, folding into loose sugar-loaf shaped heads which blanch better by having the outer leaves tied about them. Sow early in spring in rows 18 inches apart, covering  $\frac{1}{2}$  inch deep. When plants have two or three leaves thin to three or four inches apart. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.25, postpaid.

## Giant White Curled or Loose Leaf

**BLACK SEEDED SIMPSON.** One of the best for sowing outdoors where an exceedingly tender leaf is desired, and for those markets which demand a very large, loose clustering sort of a yellowish-green color. It is used also for growing under glass or in frames. Leaves ruffled and blistered and even the large outer ones are very tender. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.

**GRAND RAPIDS.** Of highest merit as a forcing variety. Owing to its peculiar upright habit of growth, it economizes in bench room and in a short time produces a mass of beautifully frilled leaves of splendid quality for the table or for shipping. It is also an attractive and desirable variety for growing outside in the home garden. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.10, postpaid.



Field of Grand Rapids Lettuce.



# Muskmelon

Prepare hills 4 to 6 feet apart in a rich, moderately dry soil, thoroughly mixing therewith well rotted manure. Early in May, or when the ground has become warm, plant 10 or 12 seeds one inch deep in each hill, afterwards thinning out so that 3 or 4 plants remain. Pinch the vines when blossoming begins, to promote fruitfulness, and cultivate till the vines cover the ground. To combat insect attacks, dust with ashes, lime, or road dust. Use Slug Shot for bugs and spray with Black Leaf 40 for lice.

## Honey Dew A NEW MUSKMELON

It is not a Casaba, the seed cavity being like an ordinary cantaloupe. Color dull white when ripe, average weight 8 to 10 pounds, and all melons nearly the same size. The Honey Dew has no netting, rind thin but very tough and keeps the flesh in good condition two to three months after gathering. Color of flesh a rich green from close to the rind to the seed cavity. Flavor most delicious, having the sweetness of honey and the freshness of morning dew. We recommend for Northern States, planting seeds in pots or cold frames after April 15th and setting plants in open ground June 10th to 20th. Pkt., 10c; oz., 20c;  $\frac{1}{4}$  lb., 65c, postpaid.



Honey Dew Melon.



Rocky Ford.

### ORANGE OR SALMON-FLESHED VARIETIES—Continued.

**HOODOO.** A new orange fleshed variety, ideal as a shipping melon and of the very finest quality. Vine vigorous, remarkably blight resisting and very productive. Netting exceptionally fine and dense, extending practically over the entire surface. Fruits uniformly of medium size. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 40c; lb., \$1.40, postpaid.

**MILLER'S CREAM, or OSAGE.** Medium to large size, of excellent quality. Vigorous and productive. Fruits oval, dark green, slightly ribbed. Flesh salmon color, thick, fine grained, highly flavored. A favorite variety for the later market. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 40c; lb., \$1.40, postpaid.

**TIP TOP.** Medium size, nearly round, flesh deep yellow, very rich flavor. One of the most productive and desirable for the home and market garden. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.25, postpaid.

## Green-Fleshed Varieties

**BALTIMORE, or ACME.** The fruits are medium sized, oval or long oval, slightly pointed at stem end, slightly ribbed, and are covered when ripe with coarse netting. The flesh is thick, green, well-flavored and sweet. This variety is very productive, sure cropper, of good quality. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.

**ROCKY FORD.** Has become one of the most popular small or crate melons and is shipped in large quantities from Colorado and Arizona. Vines are vigorous and productive. Fruits oval, slightly ribbed, densely covered with fine netting. Flesh is green, very sweet, highly flavored. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.25, postpaid.

**BANANA.** This melon is delightfully fragrant; flesh salmon color, and so thick that the melon is nearly solid; flavor resembling a banana, and when thoroughly ripe very delicious. Grows 20 to 28 in. long; very prolific. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 45c; lb., \$1.50, postpaid.

**DELICIOUS GOLD LINED.** This grand melon is almost round, heavily netted, the netting giving it a lace-like appearance. The thick, green flesh has a gold lining next the seed cavity, making it, when served, the most attractive melon ever grown. Pkt., 10c; oz., 15c;  $\frac{1}{4}$  lb., 45c; lb., \$1.50, postpaid.

**GREEN NUTMEG IMPROVED.** An old and favorite variety. Nearly round, flesh greenish yellow, excellent flavor, hardy and good cropper. Skin dark green and nearly covered with broad, shallow netting. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.25, postpaid.

**HACKENSACK.** Extra early. Very popular with market gardeners, as it is the earliest of the large melons. Fruit good size, round and heavily netted. Flesh green, sweet and fine flavor. One of the best as well as one of the earliest, hardiest and most profitable of netted melons. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.25, postpaid.

## Orange or Salmon-Fleshed Varieties

**EMERALD GEM.** A very early, yellow-fleshed melon of small to medium size. One of the very best for the home garden. Vines vigorous and productive. Fruits globular or slightly flattened, somewhat irregularly ribbed and very slightly netted. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.



Extra Early Hackensack.



# Watermelons

A light, sandy soil, with good exposure to the sun, is best for Watermelons. It should be prepared deep, but receive shallow cultivation. Hoe often and thoroughly. Plant in hills 8 to 10 feet apart each way. Plant 8 or 10 seeds in a hill, and finally, when danger of insects is past, leave but three strong plants. One ounce will plant 30 hills. What we have said about Muskmelons applies with equal force to Watermelon seed. Large quantities of cheap seed, saved from Southern fields and taken from cull melons, are marketed at very low prices. Our stock is entirely from selected melons grown strictly for seed. To destroy lice spray with Black Leaf 40.

**ALABAMA SWEET.** A very large, long, deep green melon. Rind thin, but very tough; flesh bright red and very sweet; seeds white. One of the best shipping melons grown. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 75c, postpaid.

**GEORGIA RATTLESNAKE, or GYPSY.** One of the largest, most popular melons grown. Fruit long, light green, striped with a darker shade. Flesh bright scarlet, very sweet and tender. Vines large and vigorous. Seed nearly white. One of the most desirable for either home or market. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 75c, postpaid.

**KOLB'S GEM.** Very large, round, or slightly oval, marked with irregular light and dark stripes. Rind hard and firm, making it one of the best shipping sorts. Flesh bright red, a little coarse but sweet and tender. Vine vigorous and productive. Seeds black. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 75c, postpaid.

**KLECKLEY'S SWEET, or MONTE CRISTO.** Unsurpassed for home and near market. Fruit medium to large, oblong. Flesh very bright, rich red, exceedingly sweet, crisp and tender. Not a good shipper. Vine vigorous and productive. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.

**PEERLESS, or ICE CREAM.** One of the best early melons. Vine moderately vigorous, hardy and productive. Fruit medium size, oval, bright green, finely veined with a darker shade. Flesh bright scarlet, crisp and very sweet. Rind thin, seeds white. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 75c, postpaid.



Sweetheart Watermelon.

**SWEETHEART.** Fruit one of the largest, oval, very heavy, rind thin, light green, slightly veined. Flesh bright red, firm and very tender and sweet, remains in good condition a long time after ripening. Seed black. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 75c, postpaid.

**HALBERT'S HONEY.** One of the best for local market. Fruit oblong, dark green, large. Flesh beautiful crimson and luscious flavor. Gardeners find this a very profitable melon for local markets. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 75c, postpaid.

**HARRIS' EARLIEST.** An extra early melon of excellent quality. Fruit large for an early variety, oblong, broad stripes of light and dark green. Flesh bright red, tender and sweet. One of the best for Northern latitudes. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.

**TOM WATSON.** Fruit very large, often weighing 50 to 60 pounds, dark mottled green. Flesh brilliant scarlet, heart very large and small seed space. Rind thin, but tough, making it a splendid shipping melon. Tom Watson is one of the best for home use and market. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 75c, postpaid.

## Citron

This melon is for preserving only. The flesh is very thick and firm and is one of the most highly esteemed fruits for preserves. Grown same as watermelon. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1, postpaid.

Tom Watson Watermelon.

## Mustard

Mustard is not only used as a condiment, but the green leaves are used as a salad or cut and boiled like spinach. sow in drills about 18 inches apart, covering one-half inch deep. For succession, sow every few weeks till autumn. Water freely. In the South the seed should be sown in autumn, the plants used early in spring for greens.

**SOUTHERN GIANT CURLED.** Extensively used in the South as a spring salad and for greens. Leaves light green; much crimped and frilled. Seed small, reddish brown to nearly black. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 20c; lb., 60c, postpaid.

**OSTRICH PLUME.** A careful study of the different types of curled mustard has convinced us there is not much difference in them; if anything, the Ostrich Plume does not grow quite as large as the Southern Giant Curled. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 20c; lb., 60c, postpaid.

## Virginia Peanuts

These Peanuts are successfully grown in the North, producing strong, vigorous plants 18 inches high and very productive, thriving best on light, sandy soil.

**VIRGINIA BUSH, or CLUSTER.** Pkt., 10c; pt., 25c; qt., 45c, postpaid.

**VIRGINIA RUNNING.** Pkt., 10c; pt., 25c; qt., 45c, postpaid.



Giant Southern Curled Mustard.



# Onions

We pride ourselves on supplying the VERY BEST ONION SEEDS that can be produced. Yields the past season have been 50 to 75 per cent of an average, but fortunately we contracted a large acreage, so that we have a fair supply of EXTRA FINE STOCK, but at our very low prices expect it will be exhausted early. Our stock is 1918 crop, tests showing exceptional germination. REGARDLESS OF PRICE, THERE IS NONE BETTER.

The Onion is most successfully grown in a rich, sandy loam. Continued cultivation upon the same plot of ground, contrary to the general rule, rather improves the ground than otherwise. As early as the ground can be worked in the spring, sow the seed in drills 14 inches apart, covering half an inch. When the plants first appear in the rows, commence hoeing, just skimming the surface. Subsequently, weed thoroughly and carefully by hand. When the tops die, pull the onions and spread evenly over the ground; stir or turn until thoroughly dried, then cut the top off one-half inch from the bulb. Winter in a frost-proof place. One ounce will sow 200 feet of drill; 4 to 5 lbs. per acre.

Onion Seed is one of our specialties. We make it a study and have it grown from selected bulbs in a district that is known the world over as producing the best onion seed known. It is not to be compared with the cheap seed sold through brokers to seed houses. The supply is limited to growers' contracts, hence no old stock carried over; its freshness and origin are known; it is the only safe kind to use.



White Portugal.

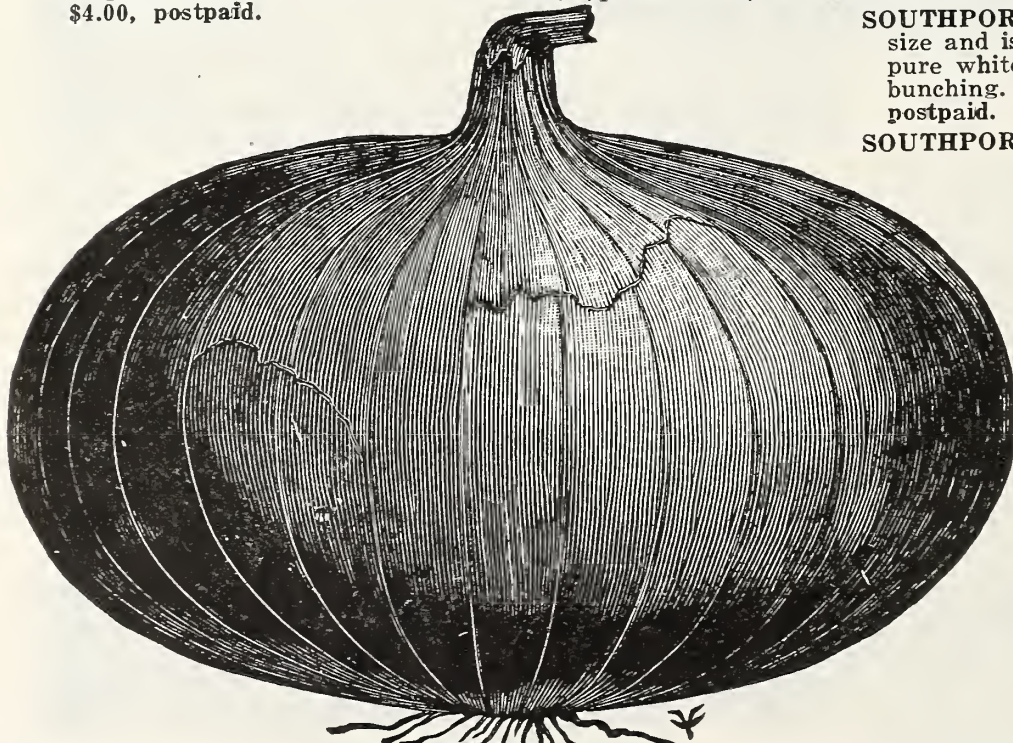
**AUSTRALIAN BROWN.** An extra early, medium sized onion, resembling somewhat the Danvers in size and shape; skin bright yellowish brown color, flesh white and mild flavor. This is one of the surest croppers and possesses the longest keeping qualities of any onion grown, having been kept in good condition for a whole year or more. One of the most desirable sorts. Pkt., 5c; oz., 20c; ¼ lb., 60c; lb., \$2.25, postpaid.

**LARGE RED WETHERSFIELD.** We have a very fine and select strain of this sort. Color is a deep purplish red, flesh white, moderately grained and very firm. Yields an enormous amount per acre. The magnificent large, solid onions are nearly as mild in flavor as many varieties with skin of lighter coloring. Its splendid keeping qualities make it easy to hold crops for late winter markets. Pkt., 5c; oz., 25c; ¼ lb., 75c; lb., \$2.75, postpaid.

**EXTRA EARLY RUSSETT.** Ten days to two weeks earlier than Red Wethersfield. Color russet brown, flesh very white and mild; splendid keeper, heavy yielder, and a much better early onion than the Extra Early Red generally offered. Pkt., 5c; oz., 25c; ¼ lb., 85c; lb., \$3.00, postpaid.

**PRIZETAKER, or MAMMOTH YELLOW SPANISH.** Grows to an immense size, and for fall marketing is unexcelled. Although of such great size, it is very hardy and a fair winter keeper, as it ripens up hard and firm; very fine grained, and of mild, delicate flavor. The outside skin is rich yellow, while the flesh is white. To get the best results from this onion, the seed is sown in beds and transplanted. It will, however, make a good crop if sown in the ordinary way. Pkt., 5c; oz., 30c; ¼ lb., \$1.00; lb., \$3.50, postpaid.

**WHITE PORTUGAL, or SILVER SKIN.** The bulbs grow to good size, ripening evenly; silvery white and very mild. A favorite for bunching when sown thick, about 25 pounds of seed to the acre; produces the finest pickling onions and one of the best for sets; also remarkable for their keeping qualities. Pkt., 10c; oz., 35c; ¼ lb., \$1.25; lb., \$4.00, postpaid.



Large Red Wethersfield.

## YELLOW GLOBE DANVERS.

This fine onion is of large size. An early and abundant cropper. Bulbs very thick, flat or slightly convex bottoms, full oval top with small neck and rich brownish yellow skin. Pkt., 5c; oz., 30c; ¼ lb., \$1.00; lb., \$3.50, postpaid.

## MICHIGAN YELLOW GLOBE.

The bulbs are large and uniformly spherical, with very small necks and the largest diameter below the center of the bulbs, of a rich orange color. Pkt., 5c; oz., 25c; ¼ lb., 80c; lb., \$3.00, postpaid.

## OHIO YELLOW GLOBE.

An early Globe Onion, small neck and very uniform in size and color. Very popular in the marsh and onion section of Ohio and Indiana. Pkt., 5c; oz., 30c; ¼ lb., \$1.00; lb., \$3.50, postpaid.

**SOUTHPORT RED GLOBE.** This is a fine keeper. Large size and considered one of the best red onions. Flesh is fine grained, very mild and tender. Pkt., 5c; oz., 25c; ¼ lb., 80c; lb., \$3.00, postpaid.

**SOUTHPORT WHITE GLOBE.** This grows to a very large size and is a perfectly globe-shaped onion. Color is a clear pure white. This variety is used by market gardeners for bunching. Pkt., 10c; oz., 40c; ¼ lb., \$1.00; lb., \$3.75, postpaid.

**SOUTHPORT YELLOW GLOBE.** A large, perfectly shaped Globe Onion and an excellent onion for keeping throughout the winter. This variety is a very heavy cropper, handsome in appearance, a good dark yellow color. Pkt., 5c; oz., 30c; ¼ lb., \$1.00; lb., \$3.50, postpaid.



Southport Red Globe.

## Bottom Onion Sets

These sets are grown from seed and when planted produce the earliest green onions; also large onions can be grown from them much quicker than from seed. Our sets are from choice seed grown and handled by the most approved methods. Plant as early in the spring as ground can be prepared.

	Pint	Quart
Yellow, postpaid.....	\$0.25	\$0.40
White, postpaid .....	.30	.50

Ask for Special Bushel Prices.

## English Multiplier Sets

The large bulbs when planted multiply and send up six to ten stalks; the small sets produce fine large bulbs. Valuable for bunching or an early crop of large bulbs. Easy to grow and productive. Pint, 25c; qt., 40c, postpaid.



## Parsley

One ounce will sow 100 feet of drill. Requires a rich, mellow, rather deep soil. Sow early in spring in drills a foot apart and half an inch deep. Soak the seed previously to sowing in warm, not hot water, which will facilitate germination. Leave soaking for about six hours. Thin out the young plants when large enough.

**CHAMPION MOSS CURLED.** A most prettily curled sort. Rather dwarf, of a shiny, rich green color. Very ornamental, being much used for garnishing. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.

**HAMBURG, or TURNIP ROOTED.** The root is the edible portion and resembles a parsnip. Foliage very much the same as the plain. Roots can be dug late in the fall and stored in sand. Splendid for flavoring soups and stews. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.



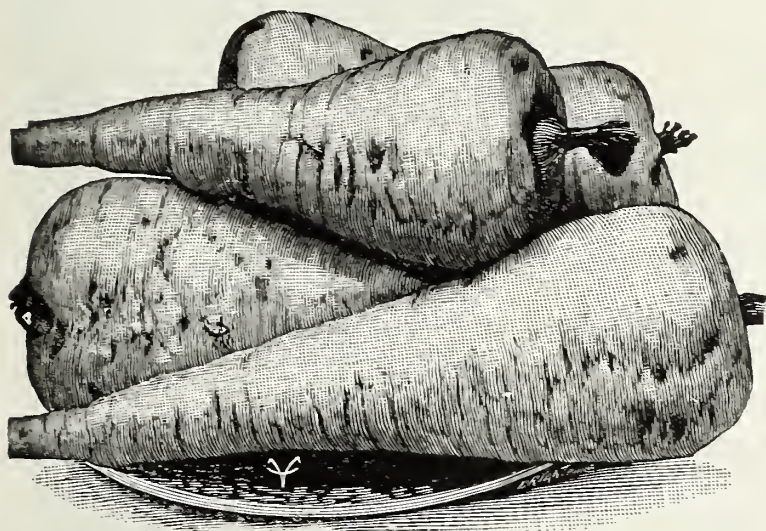
Champion Moss Curled Parsley.

## Parsnips

One ounce will sow 100 feet of drill. Requires rich, well manured soil. Sow the seed early in spring in drills 18 inches apart, covering with fine soil to the depth of half an inch. Thin out the young plants to five inches apart and cultivate well, keeping free from weeds.

**HOLLOW CROWN.** An old standard sort, long, sweet, and very productive. One of the very best varieties for general cultivation. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 45c; lb., \$1.50, postpaid.

**IMP. GUERNSEY.** This is a good, half-long variety, having smooth roots. It is of good quality and recommended for the family garden. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 45c; lb., \$1.50, postpaid.



Hollow Crown Parsnips.

### Combination Offer

Our Combination Offer on inside front cover is worth your attention. Every item in the list is one of special merit and at the price offered is only half the value of the lot. Our object is to induce those who have not used our seeds to give them a trial.

## Peppers

Sow in a hotbed in April and transplant to the open ground when the weather is favorable. They should be planted in warm, mellow soil, in rows 18 inches apart. They may also be sown in the open ground when the danger of frost is past and the soil is warm and weather settled. Thorough and frequent cultivation should be kept up until frost, by this means you can have a continuous crop.

**SPANISH JUMBO.** This magnificent variety is the largest, sweetest and finest flavored red pepper grown. On account of their large size and mild, sweet flavor, they are especially desirable for stuffing, pepper hash, mixed pickles, and other dishes in which peppers are used. Being easily grown, they should be planted in every garden. Pkt., 15c;  $\frac{1}{2}$  oz., 35c; oz., 50c;  $\frac{1}{4}$  lb., \$1.75, postpaid.

**LARGE BELL, or BULL NOSE.** A very large sort of inverted bell shape, suitable for filling or for a mixed pickle. Flesh thick, hard and less pungent than most other sorts. Pkt., 10c; oz., 35c;  $\frac{1}{4}$  lb., \$1.25, postpaid.

**CHINESE GIANT PEPPER.** Without doubt one of the very best and largest Mango Peppers ever introduced. Its mammoth size, splendid shape, beautiful, rich, glossy-red flesh and mild flavor, all lead us to speak well of it. Pkt., 15c; oz., 50c;  $\frac{1}{4}$  lb., \$1.60, postpaid.

**PERFECTION PIMENTO.** The best of the Pimento varieties and one of the best general peppers grown. For canning unsurpassed. Size nearly as large as the Jumbo or Chinese Giant. Smooth. Beautiful color and prolific bearer. See full description on page 1. It has no equal. Pkt., 15c;  $\frac{1}{2}$  oz., 35c; oz., 60c;  $\frac{1}{4}$  lb., \$1.75, postpaid.



Large Bell or Bull Nose Pepper.

## Pumpkins

Pumpkins are generally planted in corn, but a crop may be profitably raised in fields by themselves. One pound to 200 hills; four to six pounds for an acre.

**MAMMOTH GOLDEN CUSHAW.** An improvement on the old light colored Cushaw. Skin yellow. Flesh yellow, fine grained, dry, and excellent for pies. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.20, postpaid.

**JAPANESE PIE.** A valuable new pumpkin of Japanese origin. Flesh very thick, rich salmon color, dry and sweet. Very productive and valuable for pies and cooking. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.25, postpaid.

**CONNECTICUT FIELD, or LARGE YELLOW.** The pumpkin most extensively grown for stock feeding; also used for making pies. Grows to a large size. Flesh very thick, rich yellow, fine grained and highly flavored. Usually planted with corn and very productive. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 40c; lb., \$1.35, postpaid.

### Crimson Beauty Tomato

Growers who have tried this grand Tomato are unanimous in saying it is the best they have ever grown. Not alone in our section, but almost every state in the Union, wet or dry, hot or cool, all seem to have equal results. Read what they say.



Connecticut Field Pumpkin.



# Northern Grown Seed Peas

Our seed Peas are true to name, grown under most careful attention and closely hand-picked. None better can be furnished.

Peas mature earliest in a light, rich soil; for the general crop, a moderately heavy soil is best. Commence sowing the early varieties as soon as the ground can be worked, continue for a succession every two weeks until June. It is a good plan to sow the early, second early and the late varieties at the same time for a succession. One quart for 100 feet of drill; two to three bushels for an acre. The wrinkled varieties are more susceptible to cold, wet weather than the small, round, hard sorts, hence should not be planted very early, except in warm, dry locations. They are sweeter and better flavored. Our Seed Peas are grown under the supervision of one of the most expert pea men in the country, in a section best adapted to the production of the crop, and our strains are of the highest development.

## Extra Early Varieties

**EXTRA EARLY PEDIGREE.** The earliest of all peas. Vines of medium growth, vigorous and productive. Pods large for so early a pea, containing 5 to 8 sweet, fine flavored peas. Coming as they do, 6 to 10 days earlier than Alaska, they are especially valuable to the market gardener who wants to be on the market first. They are equally desirable for the home garden. This is a grand pea and we strongly recommend them to all growers who wish to have the first and best early pea. Pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.75; pk., \$3.25.

**ALASKA, or EARLIEST OF ALL.** Vines of medium height. Pods good size, well filled. Seed small, bluish green and good flavor. Crop matures evenly, making it a valuable variety for market gardeners and canners. Very early. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 45c; 4 qts., \$1.60; pk., \$3.00.

**THOMAS LAXTON.** A very early wrinkled variety. The pods are large, often four inches long and well filled. The green peas are very large and unsurpassed in quality. One of the very best peas yet introduced, and a favorite with market gardeners. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.75; pk., \$3.25.

**AMERICAN WONDER.** The earliest of the dwarf wrinkled varieties and very productive. Pods are of medium size and contain five to eight

peas. Peas large, sweet, tender and fine flavored. Highly recommended. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.75; pk., \$3.25.

**SUTTON'S EXCELSIOR.** An early wrinkled variety. Pods large, well filled. Vines 14 to 16 inches tall. Productive. Peas large and of unsurpassed quality. One of the best for market or home garden. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.75; pk., \$3.25.

**GRADUS.** A very early wrinkled pea. Vines medium height. Pods very large and well filled. Peas large and of splendid quality, retaining their green color after cooking. One of the very best. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 45c; 4 qts., \$1.60; pk., \$3.00.

**LITTLE MARVEL.** Vines about 18 inches high. Early and enormously productive. Pods filled with large wrinkled blue-green peas, of delicious flavor. This pea is taking the place of many of the older sorts and is ideal for the home garden. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 45c; 4 qts., \$1.60; pk., \$3.00.

**PREMIUM GEM, CARTER'S.** An improved strain and better than McLean's Little Gem. Vine 15 in., very productive. Pods medium size, filled with 6 to 8 peas of fine quality. Peas large, green, and wrinkled. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.75; pk., \$3.25.



Telephone.

## Second Early Varieties

**THE ADMIRAL.** Vines about 4 feet high, vigorous and productive. Pods medium size and crowded with 6 to 9 peas of finest quality. Peas much wrinkled, sweet, and of finest flavor. One of the very best peas and a favorite with canners. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.60; pk., \$3.00.

**TELEPHONE, ALLEN'S IMPROVED.** Vines tall and vigorous. The leading pea with gardeners and one of the best for home use. Pods very large and filled with large, tender,

sweet peas of excellent flavor. One of the best for home and market garden. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.75; pk., \$3.25.

**BLISS' EVERBEARING.** Vines medium height and productive. Pods medium size and if kept closely picked, vines will throw out branches bearing pods maturing in succession. Peas large, sweet, fine flavor and preferred by many to any other kind. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.75; pk., \$3.25.

## Late Varieties

**HORSFORD'S MARKET GARDEN.** The vines of this splendid variety grow about three feet high, are hardy and very productive, bearing a larger number of pods than any other variety. Pods are of medium size and contain five to seven peas each. Peas medium size, sweet and dark green color. It is not surpassed for either home or market garden. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 45c; 4 qts., \$1.60; pk., \$3.00.

**BLACKEYE MARROWFAT.** Vines tall, vigorous, and very prolific. Peas large, smooth, round, and with a black eye. Large pkt., 10c; pt., 25c; qt., 45c, postpaid. Not postpaid, pt., 35c; 4 qts., \$1.25; pk., \$2.40.

**STRATAGEM.** Vines medium height. Pods very large and filled with very large, dark green, wrinkled peas of finest quality. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 50c; 4 qts., \$1.75; pk., \$3.25.

### LATE VARIETIES—Continued.

**WHITE MARROWFAT.** Vines tall; one of the most productive of garden peas. Peas large, round, smooth, and excellent for summer use. Large pkt., 10c; pt., 25c; qt., 45c, postpaid. Not postpaid, qt., 35c; 4 qts., \$1.25; pk., \$2.40.

**CHAMPION OF ENGLAND.** Vines tall and very productive. Pods large and well filled. Peas large, wrinkled, and equal in quality to any pea grown; in fact, one of the very best for home and market garden. Large pkt., 10c; pt., 35c; qt., 60c, postpaid. Not postpaid, qt., 45c; 4 qts., \$1.60; pk., \$3.00.

## Field Peas

We make a specialty of Canada Field Peas, which are grown extensively in Michigan, and for seed purposes are regarded as the best that are produced. As a forage crop they are being grown more extensively every year. See page 26.

**"ONCE A CUSTOMER, ALWAYS A CUSTOMER."**

It is our aim to furnish the best seed that can be obtained. We expect every trial order will make a permanent customer.





Early Scarlet Globe.

**FRENCH BREAKFAST.** A quick-growing, olive-shaped root, beautiful bright scarlet, with white tip, small top and early. Desirable for growing under glass and for the garden. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid.

**BRIGHTEST LONG SCARLET.** A standard variety. Excellent for home and market garden. Short top. Roots smooth, tender, and very attractive. Grown extensively by market gardeners and a favorite in the home garden. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid.

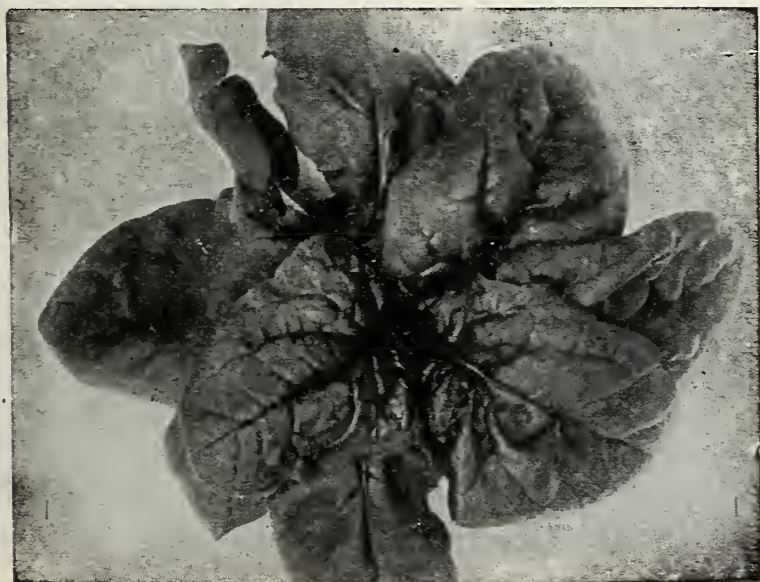
**CINCINNATI MARKET.** Similar to the Long Scarlet, but averages longer, deeper red, and remains in condition a little longer. Roots slender and often six inches long before becoming pithy. Considered one of the very best long red varieties. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid.

**CRIMSON GIANT, FORCING.** A round radish, very large for so early a variety. The root is nearly globe-shaped, beautiful crimson color, and often reaches an inch and a half in diameter before becoming pithy. Highly recommended for outdoor planting, also for forcing. Pkt., 5c; oz., 15c; ¼ lb., 40c; lb., \$1.40, postpaid.

**IMPROVED CHARTIER.** Scarlet, shading to white. Roots are in good condition for the table when half an inch in diameter and remain in good condition until an inch or more in diameter. Excellent quality, flesh hard and crisp. One of the best outdoor varieties. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid.

## Rhubarb

The earliest of spring vegetables. Sow in drills an inch deep, thin out to six inches apart. In the fall transplant in hills 3 feet apart in highly manured, deeply stirred soil. Pkt., 5c; oz., 15c; ¼ lb., 45c, postpaid.



Savoy Leaved Spinach.

# Radishes

One ounce will sow 100 feet of drill, ten pounds required for one acre. For the first crop sow as early in the spring as the ground can be worked, and every two weeks throughout the season for a succession. A warm, sandy loam, made rich and light by some good strong manure, will be most likely to make them brittle and free from worms. Sow in drills 10 to 12 inches apart. The winter varieties should be sown in July and August. Like the turnip, they make the best growth in the autumn, and must be taken up before frost, and stored in a cool cellar, in sand, or in a pit, where they will keep tender and crisp all winter. To prevent the root maggot working in radishes, we recommend planting in soil where radishes, cabbages or turnips were not grown the previous year, and the use of Carco (see inside back cover), which is said to be a positive preventative of root maggots. It has been used successfully on the Pacific Coast for several years, where it had become quite impossible to grow radishes for table use until this discovery.

**EARLY SCARLET GLOBE.** Slightly olive-shaped, bright scarlet; flesh white and tender. One of the very earliest varieties grown and highly recommended to gardeners for its size, as first forcing radish. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid.

**SCARLET TURNIP, EARLY.** One of the most attractive for its beautiful color, but little later than the Early Scarlet Globe. Roots nearly round, with white tips. Excellent for forcing. Color, bright scarlet. Flesh white and brittle. A favorite with gardeners and for general culture. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid.

**ICICLE.** Often listed under other names. Is without doubt the very best long white radish grown. Roots long, slender, pure white, very sweet and crisp. A rapid grower and one of the most desirable radishes for outdoor planting, also adapted for forcing. Our seed is a high strain. Pkt., 5c; oz., 15c; ¼ lb., 40c; lb., \$1.40, postpaid.



Icicle.

## Winter Varieties

**CHINESE ROSE.** Roots cylindrical or largest near the bottom. Skin smooth, bright deep rose. Flesh white, firm, crisp and pungent. Roots four to five inches long. Grown extensively for fall and winter use. Sometimes called Scarlet China. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.20, postpaid.

**CHINESE WHITE, or CELESTIAL.** Roots long, cylindrical, beautiful white skin and flesh. Whitest and least pungent of the winter varieties. Grows six to nine inches long and two or more inches in diameter. Flesh solid and crisp. Highly recommended for winter use. Prices, pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.20, postpaid.

**LONG BLACK SPANISH.** Roots long, thick, almost black, and pungent. Flesh white, solid, crisp, and good flavor. One of the latest and hardiest of the winter varieties. Prices, pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.20, postpaid.

## Spinach

This is an important crop for the market gardener. It is of easy cultivation. Sow for main crop in September, either broadcast or in drills one foot apart and one inch deep, in rich soil; the stronger the ground, the more delicate and succulent will be the leaves. Protect during the winter with hay or straw. For spring and summer use, sow as soon as the ground can be worked, and every two weeks for succession. One ounce for 100 feet of drill; ten to twelve pounds per acre.

**GIANT THICK LEAVED.** An early variety; very hardy and of good quality. Large, round leaves, nearly smooth, of dark green color; favorite with market gardeners. Pkt., 10c; oz., 15c; ¼ lb., 35c; lb., \$1.25, postpaid.

**PRICKLY WINTER.** Use for fall sowing, as it is extremely hardy. Seeds prickly, leaves not so large as those of other varieties. Pkt., 10c; oz., 15c; ¼ lb., 35c; lb., \$1.25, postpaid.

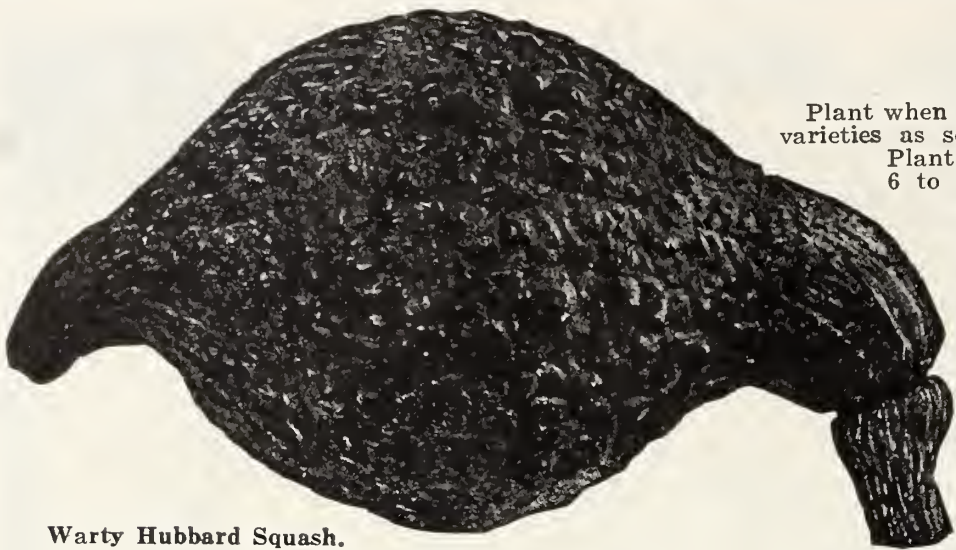
**BLOOMSDALE, or SAVOY LEAVED.** Of upright growth; leaves curled and crimped, thick and fleshy. Keeps well after cutting. Suitable for fall sowing. Pkt., 10c; oz., 15c; ¼ lb., 35c; lb., \$1.25, postpaid.

## Salsify or Vegetable Oyster

Sow the seed early in spring, in drills one foot apart and one inch deep, thinning out the young plants to four inches.

**MAMMOTH SANDWICH ISLAND.** The largest, smoothest, and the very best in every way of all salsify. Pure white, very tender, and of excellent quality. Pkt., 10c; oz., 20c; ¼ lb., 60c; lb., \$2.00, postpaid.





Warty Hubbard Squash.

## Squash

Plant when all danger from frost is past, and get in the winter varieties as soon as possible in order that they may mature.

Plant in hills 4 feet apart, for the bush varieties, and 6 to 8 feet apart for the running sorts. Put 6 or 8 seeds in a hill, thinning when all danger from insects is past to 3 or 4 plants in a hill. One ounce for 50 hills; 4 to 6 pounds per acre.

Michigan produces the best vine seeds in the world. In no place will you find better squash, pumpkin and cucumber than you will here. Our soil and climate are particularly adapted to their production in their most perfect type and best quality. Those planting them will find that they produce better results than can be obtained from seeds grown in any other locality.

### Fall and Winter Varieties

**DELICIOUS.** This is a new variety for which there is an increasing demand. It is top-shaped, of medium size. Hard green shell. Flesh deep yellow, rich, fine grained, splendid for cooking. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid.

**RED, or GOLDEN HUBBARD.** A perfect type of the Green Hubbard, except in color, which is a bright, deep orange yellow, very showy and attractive. Flesh deep golden yellow, much richer in color than Hubbard, fine grained, cooks very dry, and is of excellent flavor. Its keeping qualities are fully equal to, while in productiveness it far excels the green variety. Pkt., 5c; oz., 15c; ¼ lb., 40c; lb., \$1.40, postpaid.

**GENUINE WARTY HUBBARD.** This is the king of all squashes. It is a little bigger and rougher than the old Hubbard, and darker green. The standard winter squash; grown perhaps more generally than any other variety. Flesh bright orange yellow, fine grained, very dry, sweet flavored. Boils or bakes exceedingly dry, and is esteemed by many to be as good baked as a sweet potato. We have taken the utmost pains with this sort, and can recommend our stock as, in all probability, the best in the country. Pkt., 5c; oz., 15c; ¼ lb., 40c; lb., \$1.50, postpaid.

### Early Summer Varieties

**EARLY YELLOW BUSH.** Very early variety, scalloped, somewhat flattened and medium size. Skin deep orange; flesh pale yellow, and good flavor. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 85c, postpaid.

**MAMMOTH WHITE BUSH.** An early, round, flat squash; color clear white, handsomely scalloped. Called Patty Pan in the South. Largely planted in every section of the country. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.00, postpaid.

**EARLY WHITE BUSH, or PATTY PAN.** Is earlier than any other variety of dwarf habit; very productive. Summer squashes should always be used when young and tender, which can be determined by an impression of the nail. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.00, postpaid.

**MAMMOTH SUMMER CROOKNECK.** A well known and standard variety. Grows from 18 inches to two feet in length. The shell is hard and warted and of an attractive bright yellow color. The thick flesh is of good quality. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.25, postpaid.

## Northern Grown Seed Potatoes

**PRICES.** At the time our list goes to the printer, it is impossible to know what the conditions may be next spring. Ask for our Special Quantity Prices and we will send you our Current Farm Seed Price List.

**SHIPPING.** We will ship any time ordered if customer assumes risk of freezing; otherwise will hold orders till we consider weather safe.

**PACKAGES.** Unless otherwise ordered, we ship in sacks holding 2½ bushels, no charge for sack. If barrels are wanted, add 25c per bushel to prices quoted.

**EARLY OHIO.** The Early Ohio is, without doubt, more widely grown than any other early variety. It was originated in 1871, as a seedling from the Early Rose. Grown side by side with the Early Rose, it was found to be several days earlier and its yield one-third greater. Is similar to the Early Rose in color, but quite distinct in shape, being round-oblong instead of over-oblong. For cooking and keeping qualities this potato is without a superior. Our seed is grown in the celebrated Red River Valley, where the choicest stock in the country is obtained. 5 lbs., 65c, postpaid. Ask for our Special Price List.

**RURAL NEW YORKER.** This splendid potato is one of the most widely cultivated. Oblong, inclined to round or round oval, rather flattened; eyes few, shallow; skin pure white; flesh white. Medium late. 5 lbs., 65c, postpaid. Ask for our Special Price List.

### The Best General Purpose Potato Grown

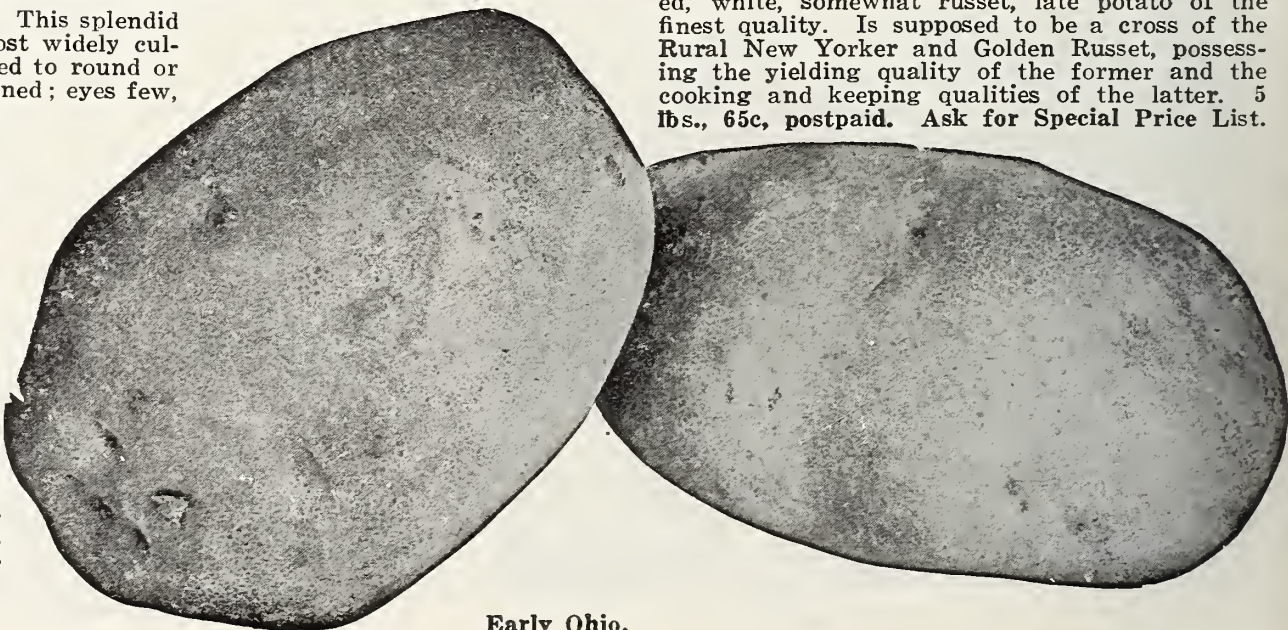
**EARLY PETOSKEY.** This is one of the earliest, at the same time, makes one of the best potatoes for storing and winter use that is grown. Planted early, the crop is ready for digging full as soon as the Early Ohio, but if planted a little later, the crop will mature before the late varieties and will carry through the winter as well as any of the later sorts. It is without a superior for cooking qualities. Flesh very white, cooks dry and mealy, and for baking, it has no equal. In shape and size, the Petoskey is all that can be desired; round, to slightly flat, medium size and run very uniform, slightly russet skin; extremely shallow eyes, and never hollow. Vines of strong, vigorous growth, flowers light purple and borne in great profusion. For yield, it is one of the most prolific. As a market potato and for home consumption, the Early Petoskey is without a rival; being of an early type, they are sure to mature, even if planted late, and many of the large growers in Michigan, where the variety originated, grow nothing else, either for market or their own use. We recommend this potato as the best of all for any purpose. 5 lbs., 65c, postpaid. Ask for our Special Price List.

**STEUBEN SPECIAL.** A medium size, oval, slightly flattened, white, somewhat russet, late potato of the finest quality. Is supposed to be a cross of the Rural New Yorker and Golden Russet, possessing the yielding quality of the former and the cooking and keeping qualities of the latter. 5 lbs., 65c, postpaid. Ask for Special Price List.

USE

## Adheso

To control early and late blight, bugs, worms, and insects on beans, beets, melons, cabbage, cauliflower, celery, peppers, and tomatoes. **FOR POTATOES** use it according to directions.



Early Ohio.



# Tomatoes

Good plants can be grown where a frame is not available, from early February on in the house in boxes. Where a hotbed is handy, sow the seed, giving good bottom heat in February to March, and when the plants are three inches high, transplant into other frames about 4 or 5 inches apart each way or plant into boxes which can be placed in the frames. Do not set the young plants in the open before all danger of frost is over, which is generally end of May to first week in June. Being very tender, they will not bear the least frost. Choose a light sandy or gravelly loam in sheltered situation, and if possible with southern exposure if early fruit is desired.

**CRIMSON BEAUTY.** We have no hesitation in pronouncing this the very earliest good tomato yet offered. While being fully as early as any other variety, it possesses qualities not found in any other early sort. Vines vigorous and exceedingly productive. Fruit bright crimson, large, smooth, coreless, and very few seeds. For shipping, no other early variety approaches it, and for slicing it is positively without a rival. Owing to the very limited supply of seeds we are offering only packages and ounces. See page 1 for more detailed information. One pkg., 15c; ¼ oz., 50c; ½ oz., 90c; 1 oz., \$1.50, postpaid.

**SPARK'S EARLIANA.** We offer the finest strain of this remarkable early tomato. Without doubt the best early variety yet introduced. Vine small but vigorous and productive. Fruit large, smooth, uniform, nearly round, deep scarlet, solid. Is borne in clusters near the base of the plant. A very profitable sort for market gardeners. Pkt., 5c; oz., 25c; ¼ lb., 80c; lb., \$3.00, postpaid.

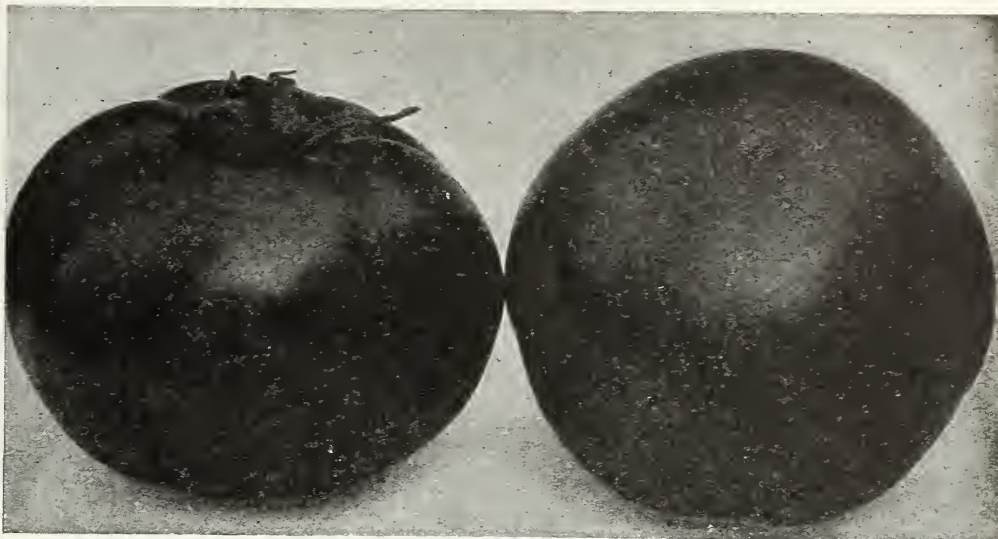
**JOHN BAER.** Of vigorous but medium growth, the vines stand good manuring and are enormously productive. Fruit of good size, bright red, extremely smooth, coreless, and very firm. In many respects this is without doubt one of the very best early tomatoes ever produced. Pkt., 10c; ½ oz., 20c; oz., 35c; ¼ lb., \$1.25, postpaid.

**MATCHLESS.** Large, smooth, symmetrical, bright red, solid and meaty. Popular main crop variety in the East; highly recommended. Pkt., 5c; oz., 25c; ¼ lb., 80c; lb., \$3.00, postpaid.

**ACME.** A well known medium early tomato of great value. Vine large, hardy and productive. Fruit purplish-pink, round, smooth, good size, and stands shipping. Flesh solid and of excellent flavor. Very desirable for home and market gardens. Pkt., 5c; oz., 20c; ¼ lb., 70c; lb., \$2.50, postpaid.

**EARLY DETROIT.** Largest and best formed of the early purple fruited sorts. Vine vigorous and very productive. Fruit is very smooth, uniform in size, firm, and excellent quality. One of the best shipping early varieties yet introduced. Pkt., 5c; oz., 25c; ¼ lb., 90c; lb., \$3.25, postpaid.

**NEW STONE.** The best late main crop tomato grown. Vine large and very productive. Fruit is round, very smooth, deep scarlet and uniform. Unequaled for slicing and canning. Seed is of high strain and carefully grown. Pkt., 5c; oz., 20c; ¼ lb., 60c; lb., \$2.25, postpaid.



New Stone.

**BEAUTY.** Vigorous and productive. Ripens a little later than Acme; uniform in size, smooth, very solid, large, and splendid quality. One of the best medium early varieties. Pkt., 5c; oz., 20c; ¼ lb., 70c; lb., \$2.50, postpaid.

**PONDEROSA.** Very large, purplish-pink, fairly smooth, very solid, few seeds and not very acid. Fine for slicing. Medium early and one of the largest. Pkt., 5c; oz., 40c; ¼ lb., \$1.25; lb., \$4.50, postpaid.

**TRUCKER'S FAVORITE.** The finest large fruited purple tomato grown. Fruit continues of large size till the last, and is unexcelled for slicing or cooking. Try this excellent variety. Pkt., 5c; oz., 40c; ¼ lb., \$1.25; lb., \$4.50, postpaid.

**GOLDEN QUEEN.** Large, smooth; beautiful golden yellow; smooth and as well shaped as the best of the red varieties; of superior flavor. Pkt., 5c; oz., 25c; ¼ lb., 90c; lb., \$3.50, postpaid.

**YELLOW PLUM.** Fruit small, but little more than a half inch in diameter. Color deep yellow; flesh yellow and splendid flavor. Highly esteemed for preserves. Pkt., 5c; oz., 30c; ¼ lb., \$1.00, postpaid.

## Tobacco

With the cost of tobacco mounting higher all the time, why not cut expenses and at the same time have a better article? Our seed is from the largest grower in the world; he does nothing else. Each variety adapted to our climate, and one for every purpose.

**Culture.**—Pulverize the soil of the seed bed thoroughly and work in a liberal application of hard wood ashes. Sow seed as soon as danger of frost is over. When plants are 6 inches high, transplant into hills 4 or 5 feet apart each way and cultivate frequently. One ounce of seed will produce plants for an acre.

**COMSTOCK'S SPANISH.** The favorite tobacco in the Wisconsin tobacco district and one of the most desirable for states north of the Ohio River. It is the standard cigar leaf type, and is considered the very best of cigar tobaccos. Leaf good size and suitable for wrappers or fillers. Pkt., 10c; oz., 30c; ¼ lb., \$1.00, postpaid.

**CONNECTICUT SEED LEAF.** Grown in all sections of the United States and regarded as one of the finest for cigar fillers. Leaf fine texture and delightful flavor. Pkt., 10c; oz., 30c; ¼ lb., \$1.00, postpaid.

**GENERAL GRANT.** This variety ranks among the first for cigars. Leaf sometimes 44 inches long, and is the earliest of all tobaccos, maturing as far north as Duluth, Minn. The size, texture, and shape of leaf makes this especially desirable for cigar and pipe. Pkt., 10c; oz., 40c; ¼ lb., \$1.25, postpaid.

**BIG HAVANA.** A hybrid Havana or Cuban seed leaf. One of the earliest, fine texture, and superior flavor. Desirable for cigars and cigarettes, also as a blend for pipe. Pkt., 10c; oz., 40c; ¼ lb., \$1.25, postpaid.

**SWEET ORINOCO.** This tobacco has received more praise than any other known variety, as a plug filler and when sun cured makes the best natural chewing leaf. Leaf long and narrow, fine grained, and excellent sweet flavor. Pkt., 10c; oz., 40c; ¼ lb., \$1.25, postpaid.

**SLATE'S IMPROVED WHITE BURLEY.** The best of all the Burley types. Leaf large, broad and fine texture, making a most desirable plug filler and wrapper. Pkt., 10c; oz., 40c; ¼ lb., \$1.25, postpaid.

**OUR MIXTURE.** For the accommodation of those who wish an assortment suitable for cigars, smoking blends, and chewing, without having to buy a larger quantity of seed than they require, we have prepared a most desirable mixture. Pkt., 10c; oz., 30c; ¼ lb., \$1.00, postpaid.



Tobacco.



# Turnips

For early use, sow as soon as ground opens in spring, in drills from 12 to 15 inches apart; thin out to 6 or 9 inches in the rows. For succession, continue to sow every two weeks until June; for fall and winter crop sow in July and August. The Rutabagas are grown for feeding stock, and are also excellent for the table. Take up the roots in November, or before severe frosts; cut off the tops within an inch of the crown, store in cool cellar or pit, or pile in a conical form out-of-doors, in dry ground; cover carefully with long straw, and finish by earthing up with about 12 or 15 inches of earth, leaving a trench around the heap to carry off water. One ounce of seed for 150 feet of drill; one pound for an acre.

**PURPLE TOP WHITE GLOBE.** A fine table turnip. It is an early and heavy cropper as well as a good keeper. The bulb is a very handsome globe, and is especially in demand among market gardeners. This is also a good turnip for stock feed, as it will grow to a large size if left for that purpose. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb., \$1.50, postpaid.

**PURPLE TOP STRAP LEAF.** This is probably more extensively planted than any other variety. It is a very early, flat turnip of medium size, the lower portion white and the upper part reddish purple. The flesh is fine grained and sweet. A splendid table variety and desirable also for stock feed. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb., \$1.50, postpaid.

**WHITE EGG.** Belongs to the class of quick-growing fall turnips, and for this purpose should be sown in this latitude between August 10th and 25th. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb., \$1.50, postpaid.

**ORANGE JELLY, or GOLDEN BALL.** Undoubtedly among the most delicate and sweetest yellow fleshed turnips yet introduced. Not of large size, but firm, hardy and of excellent flavor. Keeps well; superior as a table variety. Extensively used. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb., \$1.50, postpaid.

**EARLY WHITE FLAT DUTCH.** A popular, early, white, flat turnip of medium size. Smooth and of good quality. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 35c; lb., \$1.25, postpaid.

**COW HORN.** A long, white, carrot-shaped turnip, growing to a length of 12 to 14 inches. Flesh white and solid. Suitable for table use when small, and when matured excellent for feeding stock. This variety is sometimes planted to plow under as a fertilizer. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb., \$1.50, postpaid.

## Sunflower

**MAMMOTH RUSSIAN.** Heads very large and filled with striped seeds. This is the best and most prolific variety to grow for poultry. Pkt., 5c; lb., 25c. See Current Price List.

## Sage

The most extensively used herb for seasoning and possesses medicinal virtues. Sow in drill one inch deep, transplant to two feet apart. Plants may be divided. Pick leaves and tender shoots just as plant is coming into bloom; dry quickly in shade. Pkt., 10c; oz., 35c;  $\frac{1}{4}$  lb., \$1.00, postpaid.

## Sweet Peas

Sweet Peas, the most popular flower in America, are loved by everyone, both for their beautiful coloring and delightful fragrance. They will grow wherever the common garden peas can be raised.

Sweet Peas should be sown plentifully, as early as possible. They are usually grown in double rows with a wire trellis or a row of brush between. Make the drills about six inches deep and nine or ten inches apart. Change the location of the rows each season. At the time of planting cover with one inch of soil only, and fill in the drills as the young plants grow, taking care not to cover the top of the plants. A deep soil enriched by bone and a sunny situation is best adapted for their beds.

**TRIAL GROUNDS MIXTURE.** Seed in this mixture is saved from the trials and contains all the varieties of the Grandiflora type produced by one of the largest growers in California. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., \$1.00, postpaid.

### Giant "Spencer" Type Sweet Peas

The Spencer strain of Sweet Peas have all been derived from the original Countess Spencer, originated in England about fourteen years ago. The blossoms are much larger than the old Grandiflora type, and combine the most exquisite colors with decided orchid-shaped flowers, frequently measuring  $2\frac{1}{2}$  inches across. While profuse in bloom, the Spencer is a shy seeder, and for this reason the seed is limited in supply and expensive, some of the novelties commanding very high prices. Pkt., 10c;  $\frac{1}{2}$  oz., 20c; 1 oz., 35c;  $\frac{1}{4}$  lb., \$1.00, postpaid.



Purple Top White Globe.

## Rutabaga

For feeding stock in the fall and winter there is nothing superior to Rutabagas, as they are much liked by all kinds of stock and serve to keep them in good condition. Ton for ton, they are worth one-third the price of the best timothy hay.

**SWEET RUSSIAN, or WHITE SWEDE.** This very desirable variety is an excellent keeper and one of the best for table or stock. Tops small, strap-leaved. Roots very large, nearly globe-shaped, with small neck. Flesh white, very firm and sweet. Sometimes called Sweet Russian Turnip. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 55c; lb., \$2.00, postpaid.

**AMERICAN PURPLE TOP.** A very large, globe-shaped Rutabaga, yellow with purple top. Hardy, vigorous growing variety of excellent quality for the table and one of the best for stock feed. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 55c; lb., \$2.00, postpaid.

*I cultivated your Crimson Beauty Tomato this season for the first time, and am frank to say I am delighted with it. It is undoubtedly the finest early tomato I have ever seen. It is a heavy producer, fruit large, smooth, excellent quality, and ranks among the earliest.—N. C. McDougale Hockingport, Ohio.*

## Asters

### Mixed Mammoth Varieties.

The Aster seed we offer are grown by a specialist who makes this one crop his entire business, and the mixture contains some of the newest novelties that florists list at extreme prices. Asters are hardy, easily cultivated, for cutting one of the most useful and at the same time one of the most beautiful of flowers. Pkt., 250 seeds, 15c; 2 for 25c;  $\frac{1}{4}$  oz., 75c, postpaid.

## Nasturtiums

No other annual will produce such a lavish profusion for so long a time with the small outlay of time and labor. The maximum of bloom is produced in thin soils, and never flags through the hottest weather. In soils too rich, leaves predominate, and the plants are apt to rot off in wet weather, especially if standing too close.

**TALL, or CLIMBING NASTURTIUMS.** Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb., \$1.25, postpaid.

**DWARF NASTURTIUMS.** Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c; lb., \$1.40, postpaid.

*I am delighted with the big crop grown from your Potato Seed. They are much larger than I expected. One plant produced 36 fine tubers—some measuring 8 inches around.—J. A. SMITH, Palermo, Ont., Canada.*

*I planted your Crimson Beauty Tomato last spring and they are very fine for this year was so hot and dry, but they stood the heat all right.—MRS. MAE PIERCE, Allegan, Mich.*





Alfalfa Field Ready for Fourth Cutting.

## FARM SEEDS

In buying farm seeds there are several important questions to be considered. The most important of all is quality, and this can be insured only by ordering from some reliable seedsman. The question then is, where to place the order. There are many reliable firms, but frequently seeds of equal quality may be purchased to better advantage from one firm than from another. Some houses, by reason of heavier expenses, are obliged to charge more than others for the same thing; then, too, some firms are willing to work on a closer margin than others. The question of location, facilities for handling, shipping, and finances, all have a bearing.

Speaking for ourselves, we can only say, that for the volume of business we handle, no seed house in the country is better equipped in all respects for rendering good service than we are. No state in the Union, or no section of the world, produces such a great variety of seed crops as Michigan: we therefore, possess advantages for obtaining supplies.

When you buy seeds under our brands, **BLUE BIRD, BOB WHITE, GROUSE, or ORIOLE**, you may rest assured you are getting the best that grows, thoroughly cleaned and tested for purity and germination.

Our plant is equipped with the most modern facilities for handling. We are provided with ample capital. Our business is not too large to receive that attention to details that is necessary for good service. We own our plant and have no expensive rents. We have

no bonded indebtedness, hence no large interest charges. We therefore believe we are in position to serve our patrons in the best possible manner; that we are doing this is attested by the fact that our business has increased over 400 per cent in the past two years.

**PRICES:** In order that we may get this catalog to our customers as early as possible, copy must be given to the printers before markets are established on farm seeds, therefore we are unable to quote prices on the following pages, but will be glad to mail our Current Farm Seed Price List on request. If samples are desired, please specify the items you expect to buy.

## Alfalfa

Alfalfa requires a deep, well-drained seed bed and is best adapted to loamy, gravelly soils. To insure success, a free application of lime or ground limestone is essential, and especially if the soil is sour or acid. For best results the ground should be well settled and free from weeds.

Inoculation, while not always necessary, is no doubt advisable, and for this purpose we offer Edward's Legume Bacteria. This is one of the most reliable cultures ever offered, being a nitrogen fixing bacteria prepared for the inoculation of all legume crops, and our prices are much lower than other seedsmen ask for similar preparations. Soil taken from Sweet Clover patches and mixed with the seed before sowing or scattered over the field affords satisfactory inoculation and a great many have been successful by sowing sweet clover seed mixed with alfalfa seed in proportion of three pounds of sweet clover to twelve or fifteen pounds of alfalfa. This requires the least trouble and is said to be effective. Sweet clover adapts itself to almost any kind of soil and, being a biennial, it runs out in two years, leaving large roots in the ground to fertilize and furnish the necessary supply of nitrogen for alfalfa, or clover. Probably the surest method of inoculation is to sow the field to sweet clover, which for the two years that it lasts will afford two or three good hay crops and is then plowed under, putting the land in the best of shape for either alfalfa or clover. No better treatment is possible for light or worn out soils.

Great care should be taken in selecting alfalfa seed. Under no circumstances use a seed that has been grown in a more southern latitude than where it is to be used. For our Northern trade we make a specialty of the best selec-

tions to be obtained in Montana, Wyoming, Utah, Idaho, and Kansas, where the finest seed in the world is grown, particularly that produced at high altitudes on dry, non-irrigated lands. This seed is hardy, vigorous and well acclimated to the climate of our Northern and Eastern States.

Our **Oriole Brand Alfalfa** is the cream of all Northwestern seed and represents only the choicest crops, beautiful color, plump and clean, with a purity tests of 99.5 per cent or better. After buying, the seed is shipped to Pontiac, where it is graded up and re-cleaned by use of the best machinery made. Some lots that we get, while not having all the scoring points that we require for Oriole Brand, are very handsome seed, showing high germination and purity with all the other characteristics of high grade seed and much better than is usually sold for "our best seed," "American grown," etc., but which we sell at a less price than Oriole. It will, therefore, pay to get samples from us before buying.

Considerable success has followed spring seeding, either alone or with a nurse crop, but the best results are usually obtained by a thorough cultivation of the soil till midsummer, getting rid of weeds, then seeding in August or September, before the fall rains begin, which gives the plant a good start before winter.

Alfalfa has added more wealth to the United States than any other forage crop. It can be grown almost anywhere, no doubt 90 per cent of the farms in the Northern States will produce it successfully if given a little intelligent attention, and surely no other crop will add so much to the grower's bank account. 1 lb., 35c, postpaid. Ask for our Special Farm Seed Price List.



# Clover Seed

Of all the crops grown on the farm, clover is without doubt the most important; not only because of its market value and importance as a forage crop, but its great value as a fertilizing agent. Without it, immense sums would have to be expended annually for commercial fertilizers, and even then the benefits would not be as great as those obtained from clover. Many farmers hesitate using this valuable seed as freely as they should, fearing they may not secure a catch, or on account of the cost, which they appear to regard as an expense, rather than an investment returning them profits in many ways.

When the many benefits derived from clover are considered, it must be plain to any farmer that he cannot afford to economize too much in its use. As a forage plant some one of the different varieties is adapted to every section of the country, and taken altogether there can be no doubt that the clovers are the most valuable of all our forage crops. By using good seed, the grower is most likely to derive a benefit first from the hay crop, then the seed crop, and greatest of all, the upbuilding and maintenance of his lands. Show us a farm where clover has been grown freely and we will show you a money making owner.

No department of our seed business receives more painstaking attention than that given to clover seed, and it constitutes a large percentage of our entire seed business: in fact we specialize in these seeds and feel safe in saying that no house in the country can offer better values, either as regards quality or price.

**COMMERCIAL FERTILIZERS WITHOUT POTASH—**The European War has shut off our supply of potash, therefore the value of commercial Fertilizers for many farms is of doubtful value. Clover, however, is always the same and there is no land that is not benefited by its use.

## Red Clover

**MEDIUM, or JUNE** is the variety most generally grown. It succeeds on a great variety of soils, but those best adapted are deep, well drained clay loams and limestone soils. Moist, sandy loams, well supplied with humus are also well adapted to red clover, but it will not succeed well on dry sandy, or porous gravelly soils. Unlike alsike clover, it does not do well on wet, soggy or peaty soil. As a soil improver, in general farming, red clover is without an equal. Besides yielding 1 to 2 tons of hay to the acre, it leaves a large amount of residue in the form of vegetable matter in the soil. Plowed under green, it furnishes the soil with a great amount of nitrogen, which it derives largely from the air, and in this respect is one of the most valuable of all fertilizers.

Medium clover should, when wanted for hay, be cut when the heads are just coming into bloom. The second crop is the one that produces most seed. If not wanted for hay, it may be pastured till about the first of June, then allowed to seed.

Seeding is usually done in the spring on fall grain crops. Some still prefer sowing in early spring when the ground is checked from the action of frost, but of late years, seeding with spring grain crops has become more common. When sown alone, 7 to 12 pounds of seed are required per acre, but when sown with timothy about 6 pounds per acre is sufficient.

Michigan has the reputation of producing the best clover seed, as we are located in the center of the seed district, our facilities for securing choice selections are unequalled. We pride ourselves on the quality of clover seed that we furnish. Our **BLUE BIRD BRAND** Medium seed is without a superior on the market; selected with great care, re-cleaned thoroughly, we are confident no better seed can be procured. We have other good grades that comply with the pure seed laws and will be glad to furnish samples. 1 lb., 50c, postpaid. Ask for our Special Farm Seed Price List.

## Clover Seed Conditions

At the time this is written, the Clover Seed situation is the most uncertain in many years. Reports from producing sections indicate extensive damage by grasshoppers and drought. To add to the uncertainty regarding supplies, no seed can be expected from Europe, as they need more than they have got. It is, therefore, quite certain that if crops in this country are as light as now indicated, we may expect high prices. Hay and all forage crops are bringing the highest prices ever known, and notwithstanding the advanced cost of clover seed the past season, a ton of hay would buy more seed than in former years, when seed sold at only about half as much. High prices will prevail for several years and the farmer who keeps up the fertility of his land is the one who is going to make the big profits. To do this, he must use clover.



Medium Red Clover.

## Genuine Mammoth Red Clover

Sometimes called Bull, Large English, Sapling, Giant, and Soiling Clover. This variety grows coarse, and while not as suitable for hay as the Medium, is more valuable as a fertilizer. It matures but one crop a year, and is more sure to afford a seed crop. When grown for this purpose, it should be pastured till the first of June, or it may be clipped at about that time with a mower.

For restoring land or for general fertilization, there is nothing more valuable than Mammoth Clover. It yields a large growth and when turned under will loosen and improve the working of heavy clay soils better than any other crop.

As it is impossible to distinguish the seed of Mammoth from Medium, the seedsman must take the word of the grower or dealer from whom he buys. We therefore handle only such lots as can be obtained from the most reliable sources and take great care to keep the two separate. In the large markets the two are handled together, no particular pains being taken to distinguish between them, hence dealers who draw their supplies from such sources are never very certain as to what they are offering.

The use of Mammoth Clover has increased very rapidly the past few years, many farmers finding it a most profitable crop to grow for seed, while for the purpose of restoring depleted soils or enriching poor land, there is probably no crop that will show better results. We take the same care in making our selections of Mammoth that we do in securing the best grades of Medium, and we offer the choicest of the crop under our **Grouse Brand**. We also furnish other good grades and under other brands and at different prices.

## White Clover

White or Dutch Clover is a perennial of a creeping nature, and is used mostly in lawn mixtures, although it is a valuable addition to pasture mixtures, using one to three pounds per acre. Best adapted to low meadows where not too wet.

On lands suited to its growth it will last indefinitely, though it may be crowded out by the grasses certain seasons, only to reappear the next season. Invaluable in lawn mixtures, imparting a dark, rich green to the lawn, and holding its color with the grasses till after freezing weather.

1 lb., 70c, postpaid. Ask for our Special Farm Seed Price List.



## Alsyke Clover

Alsyke is a perennial, intermediate in size between Red and White Clover. The fragrant blossoms are of a pinkish color and furnish large quantities of honey, it being often sown by bee-keepers for that purpose. It succeeds well in moist, low lands and on heavy clay soils; in fact, may be grown in any section where clover thrives, and on a class of soils that are not so well adapted to red clover.

**Hay**—When well cured, there is no hay more greatly relished by stock of all kinds. Mixed with timothy, it affords one of the best forage rations and the two are grown very successfully together, the hay from such a mixture being better than either of them alone. In the Northern States a favorite mixture is 4 pounds of Alsyke and 8 pounds of timothy per acre. In the more Southern States, 10 pounds of Orchard Grass, 5 pounds Perennial Rye Grass, 3 pounds Red Top and 4 pounds Alsyke per acre is a common mixture.

Alsyke is harder than either Mammoth or Medium clover, but lodges more than either, hence the advantage of seeding with some of the grasses.

When sown alone for seed or hay, from 5 to 8 pounds per acre are required.

Michigan is noted for its fine Alsyke, and the best seed in the country comes from this state. Our facilities for securing fine quality are the best, as we are located in the heart of the seed district.

**Seed**—OUR BLUE BIRD BRAND is made from the best lots that we can obtain and is a strictly fancy article of high purity and germination.

We are willing to let you be the judge and ask that you compare this brand with any other Alsyke Seed you can find. If it is not the cleanest, best matured and purest of all the samples you get, we will not ask for your order. A request will bring sample.

1 lb., 40c, postpaid. Ask for Special Farm Seed Price List.

*I planted some of your Crimson Beauty Tomato seeds in a box the latter part of January, and when the plants were two inches high transplanted to another box to give them more room. In March I set the plants outdoors, where they grew sturdy rapidly and were ready for the field sooner than many of the hotbed plants. In the field they made a wonderful growth in a short time. They began to ripen about June 30th and are still bearing, (Sept. 18th). The fruit is of an exceptional firmness and beauty and the plants unexcelled producers. I can gladly recommend this tomato.*—NINA GWARTNEY, Leavenworth, Kans.

## Sweet Clover

### THE GREATEST SOIL BUILDER KNOWN

Sweet Clover is a biennial, leguminous plants. There are two varieties, the yellow and the white blossom, but the latter is the more valuable.

White Blossom Sweet Clover, *Melilotus Alba*, sometimes called Bokhara Clover, resembles alfalfa when young. The root system of Sweet Clover is one of its most notable features. During the first season of its growth, the root develops to a large size, striking deep into the soil and becoming quite fleshy, often reaching a diameter of one-half inch at the crown. The fleshy character of the root means the addition of a great amount of vegetable matter to the soil, even when the top is removed as a hay crop.

Sweet Clover was used as a food for animals 2,000 years ago. The most prominent use at present is that of a soil improver. "In this role there is no other plant which so quickly puts waste land or run-down farms back into condition for producing crops." Government Bulletin, 19351. The roots have been estimated at about 20 tons green weight per acre in a good crop of Sweet Clover. The decay of the fleshy roots at the end of the second year, when the plant dies out, opens up the soil and provides a passage for water and air into the subsoil. It is better adapted to short rotation than alfalfa.

Seeded in the spring, either alone or with a nurse crop, it produces its greatest growth the next season, and is ready to turn under for green manure or utilized as a hay crop. As a bee pasture it ranks among the best. It thrives on the poorest or the richest soils.

Cattle, hogs, or chickens pastured on sweet clover make gains which compare very favorably with those made from either alfalfa or red clover, and sweet clover will grow where the others fail to make a stand.

Failure of farmers to make use of this valuable plant has been a fear that it could not be eradicated. This is a mistake, for the biennial nature of the plant renders this problem easy. If cut as hay and not allowed to reseed, it goes out in two years, leaving behind a vast amount of valuable fertilizing material.

Considering the many advantages possessed by Sweet Clover, a more extended use of it in the improvement of worn-out lands, inoculation of soils for alfalfa, and soil improvement, is strongly recommended by the Department of Agriculture.

## The Kind of Seed to Buy and How Germination is Increased

Sweet Clover and Alfalfa Seeds have hard shells, a portion of them so hard moisture cannot penetrate and they do not germinate. For this reason only about 15 PER CENT OF UNHULLED SEED WILL GROW; 85 per cent is worthless. Hulled Seed contains 30 to 50 per cent of hard seeds that will not germinate under ordinary conditions. In various tests hard seeds have been planted under ideal conditions for germination for months and years without growing. To overcome this natural condition we have at heavy expense installed a process for treating these seeds that increases the germination of Sweet Clover 50 to 100 per cent and Alfalfa 25 to 50 per cent. The largest grower in Illinois writes: "We sent 100 lbs., for treatment and on testing the seed after it returned, found it germinated 94 per cent. The same seed before treatment germinated less than 50 per cent. Have just sown 25 acres of Sweet Clover and find the seed is coming up very thick, and sowed at the rate of 10 pounds per acre."

This treatment is for germination only and does not take the place of inoculation, which is for the purpose of fixing nodules on the roots and furnishing nitrogen to promote growth. By our process for increasing germination and the use of Edward's Pure Bacteria, we firmly believe good stands of either Sweet Clover or Alfalfa can be secured on any suitable land and save several times the cost of inoculation by the less amount of seed used.

Sweet Clover requires a thoroughly compact seed bed, with just enough loose soil on top to cover the seeds. It is usually best to seed on ground like corn stubble that does not require plowing, or can be sown with alfalfa in the spring on ground that has been rolled or well settled.

Sow 10 pounds of our treated seed, or 15 to 20 pounds of untreated hulled seed, or 20 to 30 pounds of unhulled seed per acre. We do not handle the unhulled seed and do not recommend it.

Price, 1 lb., 40c, postpaid. Ask for our Special Farm Seed Price List.

INOCULATE WITH  
**Edwards' Legume Bacteria**  
SEE PAGE 32



Sweet Clover.



## Sudan Grass

Sudan Grass is an annual of the Sorghum type. It was introduced into this country by Mr. C. V. Piper of the U. S. Department of Agriculture in 1909. The success of this new crop was at once remarkable, and by 1913, demand for seed was so great that it sold for \$2.00 per pound.

Unlike other Sorghums, it is very fine stemmed and leafy; stems about the size of a lead pencil and grow to a height of 5 to 7 feet. It is essentially a dry weather crop, the past season being too wet for its success; but in ordinary seasons it is sure to prove a most valuable addition to our forage crops. Can be cut twice or allowed to seed and then cut. Cures a beautiful green color, making a hay or forage of great value on account of the large amount of saccharine matter and protein, thus especially valuable for dairy cattle. Said by Government authorities to be the best ensilage crop known, and by many growers to make a more valuable forage than alfalfa.

Plant when the ground is warm, about when corn is planted, in rows 18 to 30 inches apart, and cultivate as corn. Unless the season is very dry, two or three cultivations are sufficient. May be cut when 3 to 4 feet high, when a second crop will come on. Is best adapted to light, dry soils. Use two to four pounds of seed to the acre, according to how close it is drilled. Will send a special bulletin on request.

Prices, pkt., 10c; 1 lb., 30c, postpaid. Ask for our Special Farm Seed Price List.



Sudan Grass.

## Alsike and Timothy Mixtures

No combination affords a better hay than alsike clover and timothy. Cut at the proper time, it cures a beautiful green color, fragrant and sweet, and there is nothing grown as a forage that is so highly relished by all kinds of stock. This combination is highly recommended by agricultural experiment stations and the Department of Agriculture. The alsike forms a thick bottom, increasing the amount of hay as compared with timothy alone, besides affording a much better feed than clear timothy.

Alsike and Timothy are both perennials, both thrive on the same kinds of soil, they mature at the same time, therefore are well adapted for a combination which cannot be too highly recommended.

Michigan farmers have long appreciated this combination, hence have grown it extensively for years, a great many of the crops being threshed for seed. As the two seeds are about the same size, it is impossible to make a clear separation, and as the mixture is not a standard on the market, the seed is bought at a considerably less price than would be the case if they could be separated. For this reason we are able to sell a high grade mixture at two to three dollars a bushel less than the same seed would cost if bought separately. As some growers prefer a larger proportion of alsike than others, we offer different mixtures at different prices, according to the percentage of alsike. By our re-cleaning process, these mixtures are of uniform character, free from noxious weeds, making them just as desirable to use as though the two were bought separately and mixed.

To secure best results, sow in the spring with a light nurse crop of wheat, oats, or barley.

1 lb., 20c, postpaid. Ask for our Special Farm Seed Price List.

## Permanent Pasture Mixture

This is a combination of grasses, clover, alfalfa, and sweet clover. As the clover "runs out," the perennial grasses and alfalfa are becoming established, making an all-season pasture. In case of low, undrained soil, the alfalfa will not succeed, but the mixture is intended to be as near suitable for all kinds of soil as possible. It being difficult to separate some of these seeds, they are carefully re-cleaned and sold at a lower price than would be possible if offered separately. 1 lb., 25c, postpaid. Ask for our Special Farm Seed Price List.

## Millet

**HUNGARIAN.** This variety possesses a small, compact seed head. The color of the seed varies from dark yellow to black. It matures intermediate between the Common and the Golden. Yields practically same as Common. The quality of the hay is first class. For hay sow broadcast from May 1st to August 1st, about 25 pounds per acre. Price, 1 lb., 20c. Ask for our Special Farm Seed Price List.

**MILLET, COMMON.** This is the best known and most widely grown of the millets; fine stemmed and leafy, with a compact head. Seeds light yellow. Matures somewhat earlier than Hungarian and produces a heavy crop of splendid foliage. Sow and cultivate like Hungarian. Price, 1 lb., 20c. Ask for our Special Farm Seed Price List.

**MILLET, GOLDEN (Formerly called German).** This variety is coarser than the Common, with broad leaves and head not so compact. Seeds bright yellow. Requires about two weeks longer to mature than the Common. Sow and cultivate same as Hungarian. Price, 1 lb., 20c, postpaid. Ask for our Special Farm Seed Price List.



Golden Millet.

## Attention!

If you get our Special Farm Seed Price List and samples, we are sure you will give us your order.

Prices on some things in the seed line at first thought may appear high, but if compared with prices crops are bringing now and formerly, seeds are relatively the cheaper.

Reasonable prices are not the only inducement we offer for your business, as quality is the first consideration with us.



# Natural Grasses

## Canadian Blue Grass

Canadian Blue Grass is a hardy perennial usually growing six to eight inches high; is dark blue in color and resembles Kentucky Blue Grass, to which it is related. Canada Blue Grass appears commonly in the Northern States, bordering on Lake Erie, and in New England. Under most conditions, there is no doubt that Canada Blue Grass is decidedly inferior to Kentucky Blue Grass, though by no means worthless. As a pasture it possesses considerable value and in some sections is considered more valuable for this purpose than Kentucky Blue Grass. In the South it has been found to stand heat better than the former, and for this reason is valuable for lawns, especially as it stands close clipping. We do not recommend it for hay. It has been imported from Canada extensively and sold for Kentucky Blue Grass, a practice that should be condemned. 1 lb., 35c, postpaid. Ask for our Special Farm Seed Price List.

## Kentucky Blue Grass

Kentucky Blue Grass is the most important cultivated pasture grass in the United States, is palatable, nutritious, productive, and can be grown over a large region. Kentucky Blue Grass is a hardy perennial with an abundance of base leaves of dark green color and of a low-growing habit. It forms a thick, tenacious sod, making it especially useful in lawn mixtures and for pasture. For pastures it may be sown in the fall or spring, and is usually combined with timothy and red clover or alsyke. It is also used extensively in combination with orchard grass, meadow fescue and other grasses. For a permanent pasture a mixture of seven pounds Kentucky Blue Grass, three pounds alsyke, three pounds meadow fescue, and three pounds orchard grass makes a most desirable combination. For lawns, a mixture in the proportion of sixteen pounds Kentucky Blue Grass, three pounds red top and one pound white clover will produce good results in almost any kind of soil. Seed should be sown at the rate of 50 to 75 pounds per acre. The legal weight of Blue Grass is 14 pounds to the bushel, but we obtained our supplies direct from the famous Kentucky Blue Grass region, taking pains to secure the very highest grades, and the stock we offer weighs 21 to 22 pounds per bushel.

1 lb., 40c, postpaid. Ask for Special Farm Seed Price List.

## Meadow Fescue or English Blue Grass

A hardy perennial grass. Does not propagate by root stalks or form a very heavy sod, neither is it as bunched as orchard grass. Valuable as a meadow grass, furnishing early and late feed. This grass has not received the attention it deserves. 1 lb., 35c, postpaid. Ask for our Special Farm Seed Price List.

## Orchard Grass

Considered a hay grass, but does not possess as high feeding value as timothy. Its chief value is for pasture, and combined with other grasses and clover is valuable for this purpose. It is sometimes recommended for lawns, but should not be used for this purpose, as it grows in bunches, producing a large, coarse leaf. It furnishes an abundance of early and late pasture, standing close cropping. 1 lb., 40c, postpaid. Ask for our Special Farm Seed Price List.

## Perennial Rye Grass

Sometimes called English Rye Grass. A perennial, succeeding best on damp clay soils. Better adapted to short rotations than some of the other grasses, and is valuable in permanent pasture mixtures. 1 lb., 25c, postpaid. Ask for our Special Farm Seed Price List.

## Red Top

Red Top is essentially a pasture grass, thriving best in moist or heavy clay soils. While considered a hay grass, the hay is not relished by stock and therefore not as valuable as timothy. It is valuable in pasture mixtures, as it produces leaves close to the ground, thus working well with orchard and some of the more erect grasses. The seed comes on the



Kentucky Blue Grass Pasture.

market in two forms, in the chaff and without chaff. Stands great extremes of temperature.

**FANCY HULLED RED TOP.** Weighs about 36 pounds to the bushel. Sow 8 to 10 pounds to the acre. 1 lb., 35c. Ask for our Special Farm Seed Price List.

**UNHULLED FANCY RED TOP.** Weighs about 14 pounds to the bushel. Sow 20 to 30 pounds to the acre. 1 lb., 25c. Ask for our Special Farm Seed Price List.

## Sheep's Fescue

A small tufted hardy perennial grass, valuable in mixtures for lawns, in shady or dry locations. About 30 lbs. per acre. 1 lb., 50c. Ask for Special Farm Seed Price List.

## Timothy

The most valuable of all the hay grasses grown in America, and to some extent adapted for pastures. A frequent mistake is made in keeping the timothy meadow down too long. In most locations it does not pay to maintain a timothy meadow more than two or three years. Timothy is frequently sown with clover, but matures later than the Medium or June. The best of all combinations is timothy and alsyke clover. We make a specialty of timothy, handling large quantities, and offer several grades. As the market fluctuates frequently, we prefer quoting prices on application, but assure our customers high quality and low prices.

**EAGLE BRAND.** For this brand we use only choice selections of western seed showing good color, high germination, and purity of 99.5 per cent. and take great pains to maintain a uniform quality. 1 lb., 25c, postpaid. Ask for our Special Farm Seed Price List.

**BOB WHITE BRAND.** Only the very fanciest grades to be obtained are good enough for this brand. The seed must be bright, free from all weather damage, high germination and purity of 99.75 per cent. It represents the cream of the crop. 1 lb., 30c, postpaid. See Special Price List.

# Lawn Grass Seed

To obtain a good lawn it is very essential that care be used in selecting the seed. Many people are under the impression that there is danger in getting weed seeds in lawn mixtures; this impression no doubt has been formed because it is a common practice to top grading off with rich dirt taken from some location that has not been under cultivation, hence contains the seeds that are common to that locality. When such soil is used it should be cultivated long enough to free it from such seeds, then sow a reliable lawn mixture, when better results will be obtained by sodding, and at much less expense. We pay particular attention to lawn grasses and are prepared to furnish mixtures for any situation or condition. Our regular brands are made from the finest seeds to be obtained.

**VELVET BRAND FOR OPEN LOCATIONS.** A strictly high grade seed. Sow 1 pound to 400 square feet. 1 lb., 45c, postpaid. Ask for our Special Farm Seed Price List.

**VELVET BRAND FOR GOLF LINKS.** Suitable for general purposes, but advise special mixtures prepared for the location and conditions of soil, etc. We will be pleased to advise with customers, and request that they give us a description of soil, drainage, how much is rolling or hillsides, and how much of the land is level, when we will prepare suitable mixtures for the different parts.

**BELLE ISLE BRAND.** A good general lawn mixture made from choice seeds. 1 lb., 40c, postpaid. Ask for our Special Farm Seed Price List.



## Field Beans

The handling of commercial beans represents a very important part of our business. Michigan is the greatest bean-growing state in the Union, and produces the best in the world. We handle hundreds of carloads of hand-picked Pea, Red Kidney, White Kidney, and Yellow Eye. In addition to furnishing the finest seed stock, we are also prepared to supply cooking beans at prices much lower than if bought second or third hand. Many of our customers make up club orders with seeds, taking advantage of the bushel prices and saving on freight. Prices subject to market changes.

**PEA BEANS.** Sometimes called Navy Beans. Are more extensively grown than any other variety. Our seed stock is the choicest selection of the genuine White Wonder variety, the most prolific and handsomest pea ever grown. Price, pkt., 10c; lb., 25c. Ask for our Special Farm Seed Price List.

**LARGE WHITE MARROW.** An old and well known variety. Large, spreading vine, with short runners. Seed white, large oval. Matures about same time as the Kidney Bean. Cooks dry and mealy, being preferred by many to any other variety. Price, pkt., 10c; lb., 30c. Ask for our Special Farm Seed Price List.

**RED KIDNEY.** This variety is coming into more general use, being in great demand by canners. A large, handsome, kidney-shaped bean of light red color. Requires a strong, heavy soil; matures about ten days later than the Pea Bean. Price, pkt., 10c; lb., 25c. Ask for our Special Farm Seed Price List.

**WHITE KIDNEY.** One of the best cooking beans grown. It affords a most delicious dish when properly baked. Requires about the same soil conditions suitable for Pea Beans, but are a week to ten days later. Price, pkt., 10c; lb., 30c. Ask for our Special Farm Seed Price List.

**YELLOW EYE.** This is one of the most prolific beans. The seed is similar in shape and size to the White Marrow, but has a large yellow blotch around the eye. A splendid cooking bean, both for baking and boiling; cooks dry and mealy. Pkt., 10c; lb., 25c. Ask for our Special Farm Seed Price List.

## Cow Peas

The Cow Pea is a valuable crop in many ways. It is one of the strongest growing legumes and when well inoculated draws heavily upon the nitrogen of the air, therefore is a good soil renovator. It can be cut for hay and makes a most excellent forage, is valuable for pasturage, and one of the best soiling crops. As a green manure it is one of the most valuable for increasing the supply of humus and nitrogen in the soil. The crop is deserving more attention than it has received. For seed production they should be sown in drills, 30 to 36 inches apart, using 30 pounds of seed to the acre. For hay or soiling, sow broadcast, using 60 pounds of seed to the acre, when the soil is warm.

Cow Peas do best in a warm, dry season and should never be planted till the ground is warm. Farmers who have learned to handle the crop consider it one of the most profitable and it is fast gaining in cultivation. It puts protein in ensilage, makes a valuable, succulent hay, and is one of the best natural fertilizers.

**BLACK EYE.** A medium late variety; vines erect and vigorous. In many sections regarded as one of the most satisfactory. Price, pkt., 10c; lb., 20c; 5 lbs., 90c, prepaid. Ask for special bushel price.

**WHIPPOORWILL.** One of the best general purpose varieties. Vines erect, vigorous, and yields well in hay and seed. Price, pkt., 10c; lb., 20c; 5 lbs., 90c, prepaid. Ask for special bushel price.

**SPECIAL MIXTURE.** This mixture is intended to be adapted to all kinds of soil and is preferable to any single variety for hay, silo or green manure. It contains Whippoorwill, Clay, and New Era, the varieties most suitable for the purpose. Prices, pkt., 10c; lb., 20c; 5 lbs., 90c, prepaid. Ask for special bushel price.

## Rape

**DWARF ESSEX.** A succulent, nutritious forage plant, adapted to almost all sections of the country. No other crop will afford as heavy yields or give better returns for the money than this. Excellent for swine or sheep, and as it stands quite severe cold, affords good pasture late in the season when other crops are gone. The Dwarf Essex variety is the only one that is worthy of a trial. Ground should be prepared as for turnips. Sow in June or July. If sown with drills, 2½ pounds; or broadcast, 4 pounds of seed should be used per acre. Price, postpaid: Pkt., 5c; lb., 25c. Ask for our Special Farm Seed Price List.



Cow Peas Growing in Corn.

## Field Peas

Field Peas are one of the most valuable legume crops and succeed well on almost any kind of soil, though do best on a clay loam. As a forage crop one of the most useful especially for dairy cows and pigs. Ready for use six weeks after sowing and no crop can be grown that will afford more useful feed at a season of the year when other feeds are scarce. For young pigs or hogs nothing is more valuable. Peas require deep planting to obtain best results; they may be sown broadcast and plowed lightly under, or if sown on plowed land should be well harrowed. The common practice is to sow peas and oats together. In this case the peas should be sown first as above and the oat afterward, using 1 to 1½ bushels of each to the acre.

**CANADIAN FIELD PEAS.** Undoubtedly the best of all Field Peas. The stock we offer is of the best quality and being near the source of production we are able to secure choice selection. Our Fancy Grade is saved from the very choicest lots and represents the cream of the crop. We have other grades and will be glad to furnish samples and prices on application. Pkt., 10c; lb., 20c; 5 lbs., 90c, prepaid. Not prepaid, by the bushel, lowest market price.

## Vetch

**WINTER, or HAIRY VETCH.** For drought resistance this is the best of all the Vetches. Hardy, and thrives on sandy soil too poor for clover. It is a legume and gathers nitrogen from the air, making it one of the most useful soiling crops for poor or worn out lands. It stands severe cold, making it a useful cover and green manure crop. Has a tendency to volunteer, hence should be cut or plowed under before seeds mature, if desiring to follow it with a grain crop. The manure value of this crop is estimated at \$26 per acre, as compared with commercial fertilizers. May be sown in the fall for spring pasture or hay, using 40 to 60 pounds of seed if sown alone, but a more common practice is to sow 15 to 25 pounds of vetch and a half bushel of winter rye or wheat, any time from August to October, when it may be pastured the following spring or cut for hay when in bloom. In the Northern States it may be sown in April or early May, either alone as above, for fall pasture, or 15 to 20 pounds of vetch with ¾ to 1 bu. of oats, to be plowed under after the oats are harvested. Sown with oats in the spring it furnishes an abundance of nitrogen, increasing the yield of oats and affording one of the best fertilizers for a fall crop.

Winter Vetch should be inoculated to insure good results. This may be done by using Edward's Legume Bacteria at a very small cost. See page 32.

Price, postpaid: Pkt., 10c; lb., 35c. Ask for our Special Farm Seed Price List.



## Soy Beans

Sometimes called Soja Beans. Is an erect, rather hairy legume, coming into general use. It is a very valuable crop in many ways. For hay it possesses even greater value than either alfalfa or clover; is an excellent green manure, and makes a splendid ensilage with corn. Is also a very profitable crop grown for seed as the supply is never equal to the demand. As a soil improver, it is one of the most useful crops. The Soy Bean may be used as a green pasture, which is in its prime during the late summer or early fall, when other pastures are short. For pasture it has been found more satisfactory to mix early and late varieties in equal proportions and plant thickly, by this means a more extended season is obtained. If Soy Beans are inoculated, they draw nitrogen from the air, same as clover, and are thus one of the most valuable fertilizing crops. The crop is rapidly gaining in favor. Do not plant till ground is warm. For hay, use one or two bushels of seed per acre. For pasture about three pecks each early and late varieties. For a seed crop, 15 pounds of small seed, 30 to 40 pounds of large seed. Sow with drill and cover about two inches. For silage, drill 5 to 10 pounds per acre in corn at last cultivation. Special bulletin on Soy Beans furnished on request.

**MEDIUM BROWN.** A medium early, large seeded variety of vigorous growth and especially adapted for hay and ensilage. Planted with corn, it makes a good growth and adds protein to the feed in which the corn is lacking. Early maturing varieties are not as suitable for ensilage as the late. Pkt., 10c; 1 lb., 20c, postpaid. See our Special Farm Seed Price List.

**BLACK BEAUTY.** A small seeded, early variety, very satisfactory in silage or mixed with later varieties for pasture or hay. Our seed is Michigan grown. Price, postpaid: Pkt., 10c; 1 lb., 20c. Ask for prices on larger lots.



Field of Soy Beans.

**MAMMOTH YELLOW.** A late variety, large yellow seed, large vigorous plant. Desirable for either hay or pasture, though not likely to mature in Michigan except in very favorable seasons. The best to plant with corn for ensilage. Pkt., 10c; 1 lb., 20c, postpaid. See Special Price List.

**HOLLYBROOK.** Small yellow seed, matures in Michigan, plant vigorous, well podded and one of the best late varieties. Our seed is Northern grown. Price, postpaid: Pkt., 10c; 1 lb., 20c. See our Special Farm Seed Price List.

## Barley

In the development of Barley, the State of Wisconsin stands foremost, and to Prof. Moore of the University of Wisconsin is due the credit for having brought to bear all the science of botany and agriculture in the prosecution of this important work.

The Pedigree Barley, for which he is largely responsible, and which is being grown very extensively in that state under the supervision of State Inspectors, is said to have added not less than \$10,000,000 to the value of the Barley crop in that state the past five years, yet by no means all the Barley grown there is Pedigree, though farmers are beginning to appreciate its value and no doubt in a few years no other kind will be sown. The yield has been increased 15 to 20 bushels per acre, the grain is of higher quality and the straw is stiffer than that of the old kinds.

We have no hesitation in claiming to have this season a stock of seed Barley that is unsurpassed, having made a special effort in this direction. The different varieties we offer are bright, plump, heavy grain, as free from oats or other grain as it is possible to have it.

### Michigan Winter Barley

The Most Valuable Grain Introduced in Recent Years

Winter Barley is grown extensively in the South, but until 1909, no strain had been found suitable for the more northern states. In the fall of 1909, Mr. Dreer, of the Agricultural Department, obtained some seed that he thought desirable for Michigan, which he sent to Prof. Spragg, of the Michigan Agricultural College, who planted it that fall, and by a process of selection of the most desirable plants and the elimination of those not deemed suitable, he succeeded in developing a strain that has shown the most remarkable results in this state.

By the fall of 1914 he had sufficient seed to distribute in 60 different parts of the state, where it was planted and the results were so gratifying that Michigan Winter Barley was planted in the fall of 1915 by every farmer who could possibly secure seed. The average yield has been over 55 bu. to the acre, as compared

with 35 bu. of spring barley. It is ready to harvest in June, thus affording the earliest of all grain crops. Fifty-five bushels of barley in pounds is equivalent to 82 bushels of oats, which rarely reach this yield. As a nurse crop it is expected that Winter Barley will prove more useful than either rye or winter wheat. Without doubt it is the most valuable addition to modern grain crops since the introduction of dent corn. Every farmer who can secure the seed should give this remarkable barley a trial.

Sow same time as winter wheat or rye at the rate of 1½ to 2 bushels per acre. Price, 1 lb., 15c, postpaid. See our Special Farm Seed Price List.

### Wisconsin Pedigree Barley No. 5

This stock was grown by one of the most successful growers in Wisconsin, especially for seed purposes, and we feel warranted in offering the seed for the highest grade that is obtainable. It is a most vigorous grower, with tall, strong straw, which stands up better than any other. Every barley grower should hasten to get a start with this new and coming variety. Professor Moore, of Wisconsin, the noted barley expert, says: "The Pedigree is a much heavier yielder, much more uniform in kernel, and a great advance in point of color over any existing sort." H. F. Kreuger, of Wisconsin, says: "It has the stiffest, plumpest berry, stands up best and yields more per acre, than any barley I have ever seen." 1 lb., 15c, postpaid. See our Special Farm Seed Price List.

### Oderbrucker Barley

This well known barley developed by Prof. Moore of Wisconsin, is one of the best that is grown. He says: "For stiffness of straw, rust resistance and color is superior to any other sort." 1 lb., 15c, postpaid. See our Special Farm Seed Price List.

### Michigan Bearded Barley

A well known variety of the six-row type and grown very extensively throughout the state. Our stock has been very carefully selected and cleaned, the grain is heavy and of high germination. 1 lb., 15c, postpaid. See our Special Farm Seed Price List.

### Champion Beardless Barley

Is as easily grown as oats, wheat, or other small grain. Our seed is of an improved type and as free from bearded as it can be obtained. This variety is especially recommended for its feeding value and for heavy yields. It is the earliest of all barleys, grows a strong, stiff straw and may be sown as early as oats. 1 lb., 15c, postpaid. See our Special Farm Seed Price List.



Champion  
Beardless  
Barley.



# Field Corn

Michigan Grown, Scientifically Cured,  
Graded, and Stored

Corn is the great staple crop in all parts of the country, and grows under widely varying conditions of soil and climate. More experimental work has been carried on with corn at the agricultural experiment stations than with any other farm crop, and all important cultural facts have been definitely worked out.

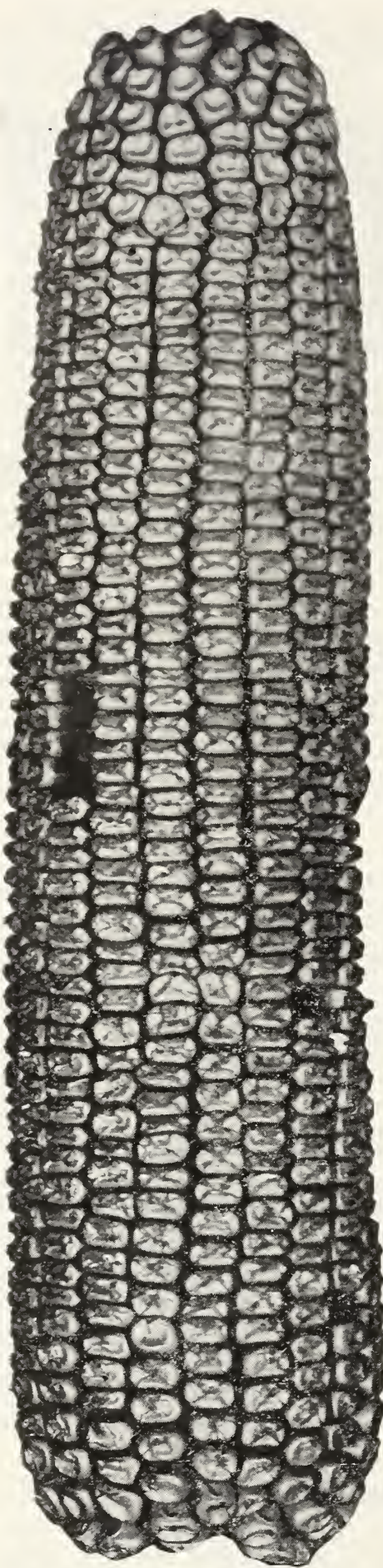
Owing to climatic changes in our seasons, the seed corn question is becoming more and more a difficult problem requiring serious consideration. It has been shown the past few years, that old-time methods of handling corn intended for seed are unreliable for best results. That merely storing in a varying temperature, even though warm part of the time, is not sufficient, but that to preserve good germination, it must be dried on the cob quickly, yet at a moderate temperature. This is best done by a system of air currents with the temperature maintained at an even degree, but to accomplish it, scientific and expensive facilities are necessary. In order to insure our customers best possible quality of Michigan seed corn, we have installed the past season, a modern plant for curing ear corn; then, when in proper condition, it is shelled and graded by most approved methods. The equipment and process is more expensive than that of others who shell first, then dry, but the results are much more satisfactory and as nature intended. Much corn, that if properly handled would make good seed, is spoiled by remaining too long on the wet cob, or frequently by being frozen in this condition. If shelled when the kernel is moist and soft, it is also likely to be injured. Our system of curing is intended to overcome these dangers and to insure the corn being preserved with its full germinating powers.

We use only hand-picked ears that are carefully selected.

**EARLY MICHIGAN DENT.** A yellow dent corn of great merit for Michigan and similar northern latitudes, and when grown farther south produces a larger ear than in the North. The origin of this corn is not known, but it is one of the earliest of the dent varieties. Ears 7 to 8 inches long, 11 to 13 rows, kernels medium deep, color a rich yellow. Stalks medium height. This is one of the surest croppers, a splendid yielder and is certain to mature before frost with anything like normal seasonal conditions and reasonable cultivation. We do not think there is a dent corn that will mature farther north than this. Our seed has been most carefully selected. Large pkt., 10c; 5 lbs., 65c, postpaid. See our Special Farm Seed Price List.

**EARLY YELLOW HYBRID.** A yellow dent corn of Michigan origin and one of the most prolific dent corns ever grown in the state. Ears 7 to 10 inches long with 10 to 14 rows. Like all hybrids, the kernels are not of uniform type, but vary in size and color. Stalks of good height. For a general purpose corn, both husking and as an early ensilage, it is unsurpassed. In average seasons it will mature as early as Early Michigan Dent, but in cool, wet seasons is not quite as early, though likely to surpass it in yield. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

**EARLY WHITE HYBRID.** A white dent corn of Michigan origin, which for yielding and early maturing qualities is without a rival. Stalks 7 to 8 feet high, one to three ears to the stalk; ears 8 to 11 inches long and 11 to 14 rows on a slender cob. This corn matures full as early as Early Michigan, and if there is a better yielding early dent corn we have never seen it. It is especially adapted to wet, cool seasons. We have taken great care in selecting our seed stock, and can recommend this variety for all Northern territory where dent corn is grown. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

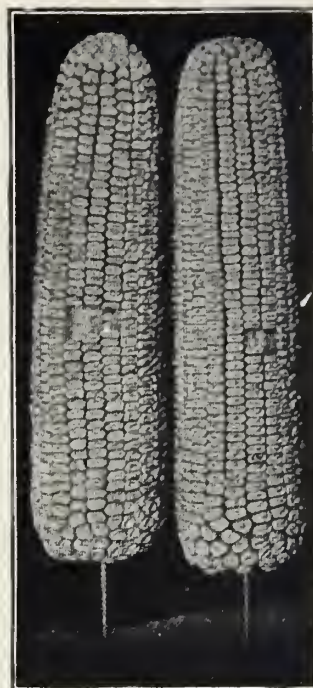


Pride of the North.

Note.—It is claimed that hybrid corn is more successful on light soils and in "off" seasons than the more highly bred types.

**PRIDE OF THE NORTH.** One of the earliest dent corns grown, maturing as far north as St. Paul. In Iowa, Wisconsin, Michigan, and New York, it is a 90-day corn. Ears medium size, with 16 to 18 rows and 7 to 8 inches long. Color of grain deep yellow, kernels very deep and small red cob. Growth vigorous, stalk medium size, usually producing two ears. This is a very hardy variety and is said to stand cold weather and to be as well adapted to poor soil as the Flint varieties. It is claimed for this corn that it can be safely replanted in South Dakota as late as the last of June. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

**WHITE CAP YELLOW DENT.** An old and well tried early variety, maturing under favorable conditions in 90 to 100 days. Of vigorous growth, it produces an abundance of fodder and affords a good yield of medium size ears, 8 to 10 inches long with 16 to 18 rows. Kernels deep, small red cob. In the ear the grain is almost white, but when shelled is an amber yellow. It is claimed for this variety that it is one of the best in heat and drought resisting qualities. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.



Silver King.



White Cap Yellow Dent.



**EARLY HURON DENT.** Is a very handsome early variety, considered a 90-day corn, and under ordinary conditions will mature in the northern corn sections, to be out of frost danger by that time. Ears 7 to 8 inches long, 14 to 16 rows, ears well proportioned, kernel of a distinct lemon color. Grain grows very compact, with no waste space at the surface. This variety is very distinct in every way. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

**KING OF THE EARLIES.** Is a pure yellow grain, ears growing 7 to 8 inches long, with 14 to 18 rows. The surface of the ear is somewhat rough and some of the ears show a distinct hook at the outer extremity of the kernel. This variety is classed among the 90-day corns, but except under the most favorable conditions, is more likely to require 95 days to mature. For Southern Michigan and similar latitudes, this is regarded a very desirable, good yielding, profitable variety. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

## Flint Varieties

**LONGFELLOW YELLOW.** A beautiful eight-rowed yellow flint, ears 10 to 15 inches long. Very prolific and early. One of the most desirable of the flint varieties. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

**SANFORD'S WHITE.** An old variety too well known to need description. One of the earliest maturing corns grown. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

**SMUT NOSE FLINT.** This variety is very similar to Longfellow, except that the kernels have a reddish tinge. Very early

## WISCONSIN NO. 7, or SILVER KING.

This very valuable white dent corn was originated by the Wisconsin Agricultural College, and from there has been introduced to all parts of the Northwest, having been grown successfully in the most extreme northern part of the corn growing sections. Stalks of medium growth, ears uniform in shape and size, maturing perfectly in 90 days. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

**GOLDEN GLOW.** One of the best yellow dent corns ever produced. Originated in Wisconsin and it is said that it is the corn that put the state in the corn belt. Ears 7½ to 8½ inches long, with from 16 to 20 rows. The diameter of ears is greater than either of above varieties. Kernel is medium yellow to deep orange in color. Matures in 90 to 100 days. This variety has made some phenomenal yields and is held in very high esteem by those who have been growing it. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

and one of the most prolific of the flint varieties. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

**KING PHILIP.** An extra early variety of flint corn that originated in New England. Ears 10 to 12 inches long, kernels red at the base running to an orange-red at the top. Kernels are softer than other flint varieties, and for this reason regarded a better feeding sort. Will mature anywhere that corn can be grown. Pkt., 10c; 5 lbs., 65c, postpaid. Ask for Special Farm Seed Price List.

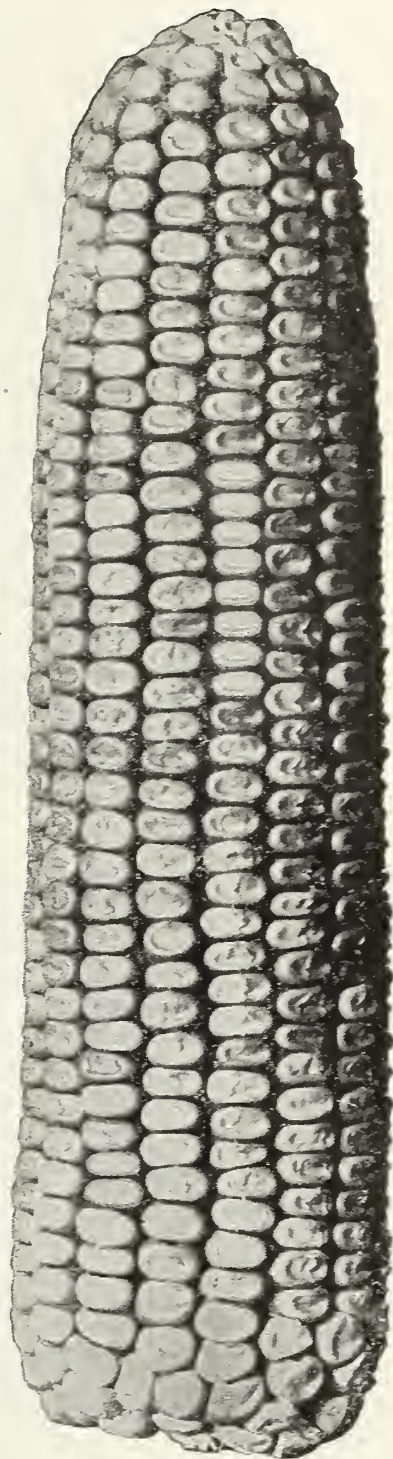
## Fodder Varieties

**ST. CHARLES RED COB.** Of most vigorous growth, with long, wide leaves and tall, succulent stalk. It is especially adapted to ensilage purposes. Under very favorable conditions it will mature as far north as the extreme southern part of Michigan and will reach sufficient maturity for ensilage wherever dent corn is grown. No other variety will produce such a wealth of fodder as this. Many successful growers prefer to plant alternate rows of St. Charles and one of the early dent varieties, cutting the two together for ensilage; the one furnishing the succulent and the other the hard part of a most excellent feed. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

**IMPROVED LEAMING.** A very valuable yellow dent corn, maturing under favorable conditions in 100 days, but owing to its vigorous growth has been used more extensively as a fodder or ensilage corn than any other yellow variety. Is well adapted to light soils and produces a remarkable amount of fodder. Sure in germinating quality, rich in sugar, vigorous growth. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

**EVERGREEN SWEET CORN.** This affords one of the best early summer green fodders for swine, milch cows and cattle. Is rich in sugar, succulent and relished by all kinds of stock. No other crop will furnish any more feed per acre than sweet corn. Plant the same time as field corn. Large pkt., 10c; 3 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.

**EARLY MASTODON.** In all the qualities required of a fodder or ensilage corn, Early Mastodon is by far the best; stalks 10 to 12 feet high, very leafy and said to be even richer in saccharine matter than Leaming. Matures in 100 to 110 days, and frequently produces 125 bushels per acre. Corn cut in the dough stage is at its best for ensilage, and this variety may be depended on. As most of the stalks bear two and even three ears the tonnage per acre is almost equal to St. Charles Red Cob, while the feeding value is greatly superior. Our back cover illustrates a field of this corn, which we recommend for Michigan and all Northern States. Large pkt., 10c; 5 lbs., 65c, postpaid. Ask for our Special Farm Seed Price List.



Early Yellow Hybrid.

## Pop Corn

We are extensive handlers of Pop Corn, and besides offering seed we are in a position to furnish a superior quality for popping at very low prices. Will be pleased to quote on request.

**WHITE RICE.** The variety that is most extensively used for commercial purposes. Ears 6 to 7 inches long; kernels white and shape of rice. Pops large and tender. A very profitable crop to grow in a small way. Price, large pkt., 10c; 1 lb., 20c; 5 lbs., for an acre, 90c, postpaid. Ask for our Special Farm Seed Price List.

**QUEEN'S GOLDEN.** A favorite variety for the garden and home use; also very popular with street men. Stalks 6 feet high, hardy, matures about the same time as White Rice, and very prolific. Large pkt., 10c; 1 lb., 25c; 5 lbs. for an acre, \$1.10, postpaid. Ask for our Special Farm Seed Price List.

**LITTLE GIANT.** Sometimes called Australian Hulless, Dwarf Rice, etc. Ears small, but a number of them on a stalk; one of the most productive varieties grown and in popping qualities excels all others. The demand for this corn is growing constantly and it commands the highest price. See page 2. Large pkt., 10c; 1 lb., 25c; 4 lbs., for an acre, 90c, postpaid. Ask for our Special Farm Seed Price List.

Our Standard Alsike and Timothy Mixture is the cheapest and most satisfactory seed you can buy for hay or pasture seeding.



Early White Hybrid.



# Oats

There are many things to be considered with reference to the oats crop for the next few years. Uncertainty regarding the maturity of corn is making that crop less dependable, though it is to be hoped climatic conditions may be more favorable for it the coming season, but in view of the disastrous results past two or three years, oats promise the surest returns of all the coarse grain crops, and not excepting wheat, it is doubtful if any grain crop is as certain to prove profitable as oats.

The government will force a more extended use of oats either as oat meal or oat flour mixed with other grains, which must have a decided effect on market values the coming year or two. For feeding, next to corn, oats is the most useful of all the grain crops. It would, therefore, seem that farmers should plan for as extensive an acreage as possible with assurance that no matter how large the crop may be, it will all be wanted.

We have exercised the greatest care in selecting and cleaning all of our seed stock, which we believe is equal to any that can be obtained and better than much of the stock that is being offered for seed purposes.

We shall be pleased to submit samples and feel sure you will agree with all claims we make.

Aside from getting a better variety than you have been growing, it pays to change seed, the difference between what new seed costs and what you can sell common grain for, is so slight that it represents but a few cents per acre. Prices subject to market changes.

## Worthy Oats

Before you decide the seed oat question, you should give the **Worthy** serious consideration, and especially the pedigree seed we are offering. Ask us for a sample and price on the quantity you require. This is the year for oats; they will be wanted. A very slight increase in yield will pay for the seed and the usual increase from this variety will pay for it several times over. Oats being sold by weight, has it ever occurred to you how much difference it makes, whether your grain weighs 36 lbs. to the bushel, or perhaps only 28 lbs.

This is a development of the Michigan Agricultural College and has proven in a six year test, the most prolific oat grown in Michigan. The straw is of medium growth, heads large and spreading, berry large, plump and heavy. In 1917, this oat out-yielded all other varieties, many pieces going as high as 85 bushels per acre. The average yield through a six-year comparative test at the Michigan Experiment Station, has been 60 bushels. Farmers who have been growing the **Worthy**, are all very enthusiastic over it and pronounce it the best oat they have ever grown.

Our seed stock is from pedigree seed and of extra quality, having been selected from only the best crops. Peck, 35c; bu., \$1.25, not prepaid. Bags extra. Ask for our Special Farm Seed Price List.

## Improved Silver Mine

This oat has a reputation as a heavy and exceedingly reliable producer. It is hardy and very prolific, yielding a beautiful white kernel which is especially desirable for the manufacture of rolled oats, and grain for this purpose will be in great demand the coming year, owing to the increased use of oat meal.

Heads are large and borne on a stiff, bright straw which is less liable to lodge than many other varieties. Berry is long, plump, heavy and bright, making it a very attractive grain for market purposes and for feeding, no better oat is grown. In fact, this is deservedly one of the most popular and widely cultivated oats yet produced, and is, without doubt, adapted to as wide a range of soil and climatic conditions as any oat in cultivation. Peck 30c; bu., \$1.15, not prepaid. Bags extra. Ask for our Special Farm Seed Price List.

## Banner Oats

This is one of the earliest maturing oats and said to be as nearly rust proof as any variety grown. Straw stiff, standing up well. Grain heavy and good color. Our seed is from a most reliable source, has been carefully re-cleaned and is free from any kind of weed seeds. We recommend this variety for all sections of the Northern States. Prices, not prepaid: Peck, 30c; bu., \$1.15. Bags extra. Special prices on larger lots. Ask for Special Farm Seed Price List.



Field of Banner Oats After Cutting.

## Speltz

**Speltz** is a grain resembling barley. It was introduced into this country from Southern Europe, where it has been used in place of wheat for flour, also as a stock feed for centuries. It appears to be adapted to all kinds of soil and climate; is more productive than oats; cut at the right time makes an excellent hay; is resistant to cold and drought; neither rusts, blights, nor lodges. In fact is a most useful and profitable crop to grow. The grain is splendid feed for hogs, cattle, horses, and poultry; is rich in protein, making it superior to oats in feeding value, and when growing makes a wonderfully valuable pasture. No other cereal is adapted to a wider range of uses and is deserving of a wider cultivation. Sow  $1\frac{1}{2}$  to 2 bushels per acre. Ask for special bushel prices. 5 lbs., 65c, postpaid. Bags extra. Ask for our Special Farm Seed Price List.

## Buckwheat

Should be sown about the middle of June, at the rate of from one-half to three-fourth bushel per acre. You will avoid the danger of it spoiling by threshing as soon as dry.

**JAPANESE.** This is the most productive variety, it frequently giving enormous yields. The berry is larger than the **Silverhull**, produces a fine flour and is a week earlier than other varieties. Lb., 15c, postpaid. Ask for our Special Farm Seed Price List.

**SILVERHULL.** For quality of flour no Buckwheat excels the **Silverhull**. The berry is not quite as large as the **Japanese**, is a silver-gray color, shell very thin and grain heavy. The plant remains in bloom longer than any other variety, therefore is valuable for bees. Price, 1 lb., 15c, postpaid. Ask for our Special Farm Seed Price List.

## Flax

Every farmer could grow a small field of flax at a good profit. The ground seed is valuable for many purposes and every farmer buys more or less. Any surplus seeds always find a ready market at a good price.

Sow as early in the spring as possible after there is no danger of frost. Cut before quite ripe, and, if possible, in clear weather, to avoid rains; let it lay in the swath a few hours, when it should be secured from the weather.

If wanted for seed, sow  $\frac{1}{2}$  bushel per acre, if for the fibre, a larger amount of seed should be used. Price, pkt., 5c; lb., 20c, postpaid. See our Special Farm Seed Price List.

## Broom Corn

**IMPROVED EVERGREEN.** In all respects the best variety grown. Is early, produces a superior quality of brush of straight, fine texture and green color. Prices, pkt., 5c; lb., 20c, postpaid. See our Special Farm Seed Price List.

*I raised 50 hills of Seedling Potatoes from one packet of seed. Some early—some late—many kinds, colors and shapes; 94 potatoes in one hill—one measured 7 inches around.—MARY SKINNER, Grant Co., Ohio.*



## Rosen Rye

This wonderful Rye is certain to supplant all other varieties in time, being the heaviest yielder and furnishing a better quality of grain than any other rye grown in this country. To Prof. Spragg of the Michigan Agricultural College is due the credit for developing this most remarkable grain, which we believe is destined to add many thousands of dollars annually to the value of farm crops in Michigan alone.

**HISTORY.**—A Russian student of the M. A. C. brought with him from Russia a handful of rye, which he gave to Prof. Spragg, who planted it, and from the crop selected a single plant which showed exceptional characteristics. The grain from this plant was saved and planted the next season, and from this crop he again selected plants of the most promising type, repeating this process from year to year until he had sufficient seed to parcel out among a few expert farmers in different sections, at the same time continuing it as a crop at the State Experimental Farm, where for the past three years the average yield has been 41.3 bushels per acre, of an exceptionally high quality of grain.

It produces a strong, vigorous straw and the grain is large, plump and heavy. The berry is 50 per cent larger than common rye, color light, with a silvery luster, making it very attractive and just the kind of grain distillers and millers want.

Our seed stock is grown by some of the best farmers in Oakland County, apart from other rye, and threshed in a most careful manner. It stools very heavy, therefore requires less seed. Sow 3 to 4 pecks up to September 10th. After that date, 4 to 5 pecks per acre. Price, large pkt., 10c; lb., 20c, postpaid. Not postpaid, pk., 50c; bu., \$1.85. Bags extra. Ask for our Special Farm Seed Price List.



Rosen Rye.

**COMMON WINTER.** Michigan grown winter rye is regarded as the most desirable for seed. We furnish many carloads to seedsmen in different parts of the country, it being especially popular with farmers who grow it for soilage, pasture, and as a grain crop. Peck, 45c; bu., \$1.75. For larger quantities see our special price list.

**SPRING RYE.** Used largely as a cover crop for Vetches, also for turning as a soil improver. It is also a profitable grain crop, especially adapted to poor soils, and affords quick returns. Price, pk., 60c; bu., \$2.25. For larger quantities see our special price list.

## Kaffir Corn

A dwarf, leafy variety of sorghum, which is grown for both seed and forage. Should be planted and cultivated same as corn. When harvested for both seed and fodder should be cut in the late dough stage. 5 to 8 lbs. of seed per acre. Prices, postpaid: Large pkt., 10c; lb., 20c. Ask for our Special Farm Seed Price List.

## Sorghum or Sugar Cane

**EARLY AMBER CANE.** The earliest of all and the richest in saccharine matter, making it the best for syrup, producing 150 to 250 gallons of rich, fine flavored syrup or 4 to 5 tons of forage. There is a growing demand for sorghum syrup at profitable prices, making this a desirable crop to grow. Prices, postpaid: Large pkt., 10c; lb., 25c. For larger quantities see our Special List.

**SUGAR CANE FODDER.** One of the most useful forage crops. Can be grown anywhere, in wet or dry seasons. Can be fed to all kinds of stock. When about 2½ feet high it may be cut and a second crop will come on. Sow with grain drill with every other hole stopped; cultivate same as corn. Prices, postpaid: Pkt., 10c; lb., 20c. For larger quantities see our Special List.

## Red Rock Winter Wheat

Red Rock is a variety of red wheat having exceptional winter hardness, high yielding ability, an extra stiff straw, and those characteristics that produce a bread of unusual quality.

When wheat breeding work began ten years ago, the white wheats were outyielding the reds, while the slightly higher price paid for red wheat did not make up the difference, but since the discovery of Red Rock, white varieties cannot compete from the standpoint of yield, quality, or price.

**History.** Red Rock wheat originated from an individual kernel planted in the fall of 1908. In 1911 it had been

increased enough to enter the variety series of the Michigan Agricultural College. The severe winter of 1911-1912 proved its superiority. It produced four times as much as the old standard that year, because of its hardness. Hundreds and thousands of pure strains have been tested against Red Rock, but none so far have been found to outyield it.

Our Red Rock seed is of pure strain, grown with great care, fields rouged and pains taken in threshing to keep it free from other grain. The demand for this seed will be greater than can be supplied this season and expect the limited supply will be quickly absorbed.

Average seeding, 1½ bushels per acre up to Sept. 20th. Later seeding, 7 to 8 pecks per acre.

Price, 20c per lb., postpaid. For larger quantities see our Special List.

## Spring Wheat

**MARQUIS.** Is of Canadian origin and grown more extensively in the Northwest than any other variety. Straw medium length, heads four inches long and beardless. Matures very early. Berry short and round, red color. Price, lb., 20c, postpaid. Ask for our Special Farm Seed Price List.

**BLUE STEM, or MINNESOTA NO. 169.** Originated at the Minnesota Experimental Station. It is a progeny of Hayne's Pedigree Blue Stem, but much more productive. Is grown extensively in the West and Northwest, and in quality is without a superior. Price, lb., 20c, postpaid. Ask for our Special Farm Seed Price List.



A Development of Prof. F. A. Spragg, Plant Breeder, Michigan Agricultural College.



About 16c  
per Acre**EDWARDS' LEGUME BACTERIA**About 16c  
per Acre**Why Better Crops Are Grown by Their Use**

The chief value of legumes such as alfalfa, clover, peas, beans, etc., for use either as food or as green manure, lies in their high content of nitrogen.



Portion of root of alfalfa plant showing the tubercles or nodules formed by the nitrogen-gathering legume bacteria. (Photograph natural size.)

With the aid of certain kinds of bacteria, the legumes can get their supply of nitrogen from the air. These bacteria live and grow in the soil, and as the new plants start to grow the bacteria burrow into the roots, grow there, and produce nodules or tubercles, visible to the eye as little bunches on the smaller roots. During this process the bacteria take the nitrogen from the air and give it to the plants. Unless the plants have these legume bacteria growing on their roots, they will not make a successful growth.

On land where it is hard to get a good catch of legumes, or on which a new crop is to be sown, the right kind of bacteria must be supplied by inoculation. One method that has been recommended in times past is to spread over the field to be

seeded, soil from a field that has grown the same crop. This method is cumbersome and expensive, and is apt to introduce into the soil seeds of bad weeds, or fungous or bacterial plant diseases, hence it is not a desirable method.

**Seed Inoculation Simple**

The best method of inoculation is to treat the seed before it is sown with a pure culture of the right kind of bacteria for that particular crop. By this method the inoculation can be done in a few minutes time, and the bacteria are carried into the soil with the seed in ample numbers to insure inoculation of the roots with consequent increased growth of the crop, and with no risk of introducing seeds of bad weeds or germs of plant or animal diseases.

**The Cost**

**EDWARDS' LEGUME BACTERIA** cultures are made in two sizes, to inoculate 30 and 60 pounds of seed. To inoculate 30 pounds of seed, 65c; to inoculate 60 pounds of seed, \$1.25, prepaid.

These prices mean a very low cost per acre, the exact amount depending on the amount of seed sown. The cost is less than to pay freight rates on soil from a distance, or even to haul it from a neighbor's field for soil inoculation, and the labor is much less, as seed for several acres can be inoculated in a few minutes with the pure cultures.

Cultures are made for legume crops as follows: **Alfalfa, Sweet Clover, Burr Clover, Red Clover, Alsike Clover, Crimson Clover, White Dutch Clover, Japan Clover (Lespedeza), Field or Garden Beans, Lima Beans, Broad Beans, Velvet Beans, Soja Beans, Field or Garden Peas, Sweet Peas, Vetches, Cow Peas, Peanuts, Sanfoin, Beggar Weed.** Of this list, the same culture can be used for either Alfalfa or Sweet Clover, and likewise the same culture can be used for Red, Alsike, Crimson, and Dutch Clovers. All the other crops require a different culture for each as named.

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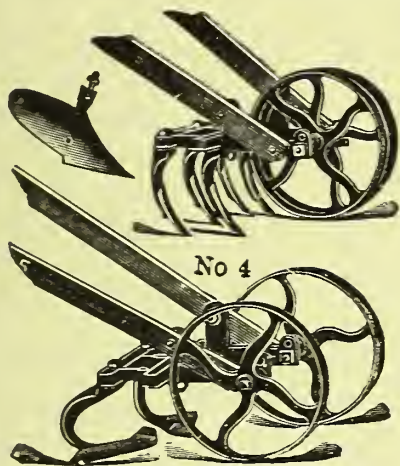
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# Bacon Hand Seed Drills, Hoes and Plows

Made of Angle Iron, Malleable and Steel, Insuring Great Strength and Durability.

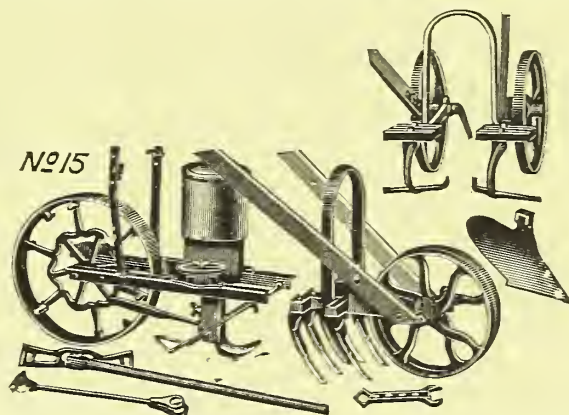


No. 1 Drill same as No. 10 without the hill dropper. Price, \$7.75.

No. 4, Combined Single and Double Wheel Cultivator, Hoe and Plow. For early cultivation it may be used with two wheels, working both sides of the row at once, and later with one wheel, working between the rows. Price, \$5.50.

No. 6. Expansion Arch Cultivator, Hoe and Plow. Used as a single or double wheel implement. The high arch gives as much clearance as a 30-inch wheel cultivator, runs easier and does closer work. Price, \$6.50.

No. 10.	Hill and Drill Seeder .....	Price
No. 12.	Hill and Drill Seeder, and No. 4 cultivator combined .....	\$ 8.75
No. 15.	Hill and Drill Seeder, and No. 6 cultivator combined .....	11.25
		12.00



## INSECTICIDES

"ADHESO" is a combination of 99 per cent pure arsenate of lead and copper hydrate and has the property of sticking to the fruit and foliage even through rains, and is there when most needed, for it is during and just after rains that scab, apple blotch, bitter rot, brown rot, leaf curl and other fungus diseases spread most rapidly and when insects do most harm. It is there to kill codling moth and other chewing insects.

"Adheso" is there to protect your fruit, no matter if it rains again and again.

"Adheso" takes the place of lime and sulphur or Bordeaux mixture.

"Adheso" will not russet or burn the fruit or foliage.

It is easy to handle; being in concentrated form the cost of transportation is less than in bulky mixtures like lime and sulphur and Bordeaux.

Orange Label Adheso 4.2 to 4.3 per cent copper hydrate; 8.9 to 9.3 per cent arsenic oxide. Is used on all kinds of fruit and shade trees. Further descriptive matter on request.

Green Label Adheso 6 to 6.3 per cent copper hydrate; 8 to 9.75 per cent arsenic oxide. Is used on all vegetables, currants, gooseberries, rose bushes, shrubbery and grape vines. Because it sticks, it is better and cheaper for potatoes than Paris Green, not only to kill potato bugs, but to prevent blight and other fungus diseases. Prices: 5 lb. cans, \$1.25; 12½ lb. cans, \$3.00; 100 lbs., \$18.00. By express or freight.

ARSENATE OF LEAD. Paste (15% arsenous oxide). We handle the reliable Triangle brand, 99% pure and one of the oldest on the market. It is in paste form, which insures a more complete mixture for a spray than is possible with the dry form. Full descriptive matter on request. 5 lb. cans, \$1.25; 10 lb. cans, \$2.40; 25 lb. cans, \$5.50; 100 lb. keg, \$18.00. By express or freight.

ARSENATE OF LEAD POWDER. (30% arsenous oxide). Prices, 1 lb., 40c; 5 lbs., 38c per lb.; 10 lbs., 37c per lb. By express or freight. Special prices on large lots.

"BLACK LEAF 40" is the strongest tobacco extract made. Contains 40 per cent pure nicotine and is the most valuable of all sprays for Aphis, Thrip, red spiders, rose bugs, green fly and all kinds of plant lice. Full descriptive matter on request. 1 oz. bottles, 25c; ½ lb. tins, 75c; 2-lb. cans, \$2.50; special prices on larger quantity. By express or freight.

HAMMOND'S SLUG SHOT is an old and reliable remedy for cabbage worms, currant worms and lice, gooseberry worms and mildew, lice on fowls, etc. Lb., 25c; 5 lbs., 50c; 10 lbs., 90c. By express or freight.

"GERMOSIDE." A reliable liquid preparation for treating oats and other grain to prevent smut. Bottles sufficient for 5 bushels, 25c each. By express or freight. Cannot be mailed.

CARCO. A positive preventative of Root Maggot in radishes, onions, and all root crops; also for cut worms, grubs and other worms. It has a fertilizing value and improves the quality and yield of cabbage, cauliflower, turnips, radishes, onions, beans, beets, etc. A highly concentrated solution used 1 part to 125 parts of water as a spray.

The root maggot is hatched from an egg deposited on the plant by the maggot fly, which is positively controlled by Carco. Prices, 1 pint can, 25c; ½ gal. can, 80c. By freight or express.

WHALE OIL SOAP. Made from pure whale oil and caustic potash. Remember this is not Fish Oil, but genuine Whale Oil Soap. For insects on plants, shrubbery, trees, animals, poultry, etc. 1 lb. cake, 28c, postpaid. Not prepaid, 18c.

Poisons cannot be sent by Parcel Post.  
Poisons cannot be sent through the mails.

If in the Market for Large Lots of Spray Material, Let Us Figure On Your Requirements.

United States Food Administration License No. G 31815.  
United States Grain Administration License No. E 0817.

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**SEE PAGE 29**

**The C.E. DE PUY COMPANY**  
**PONTIAC, MICH.**